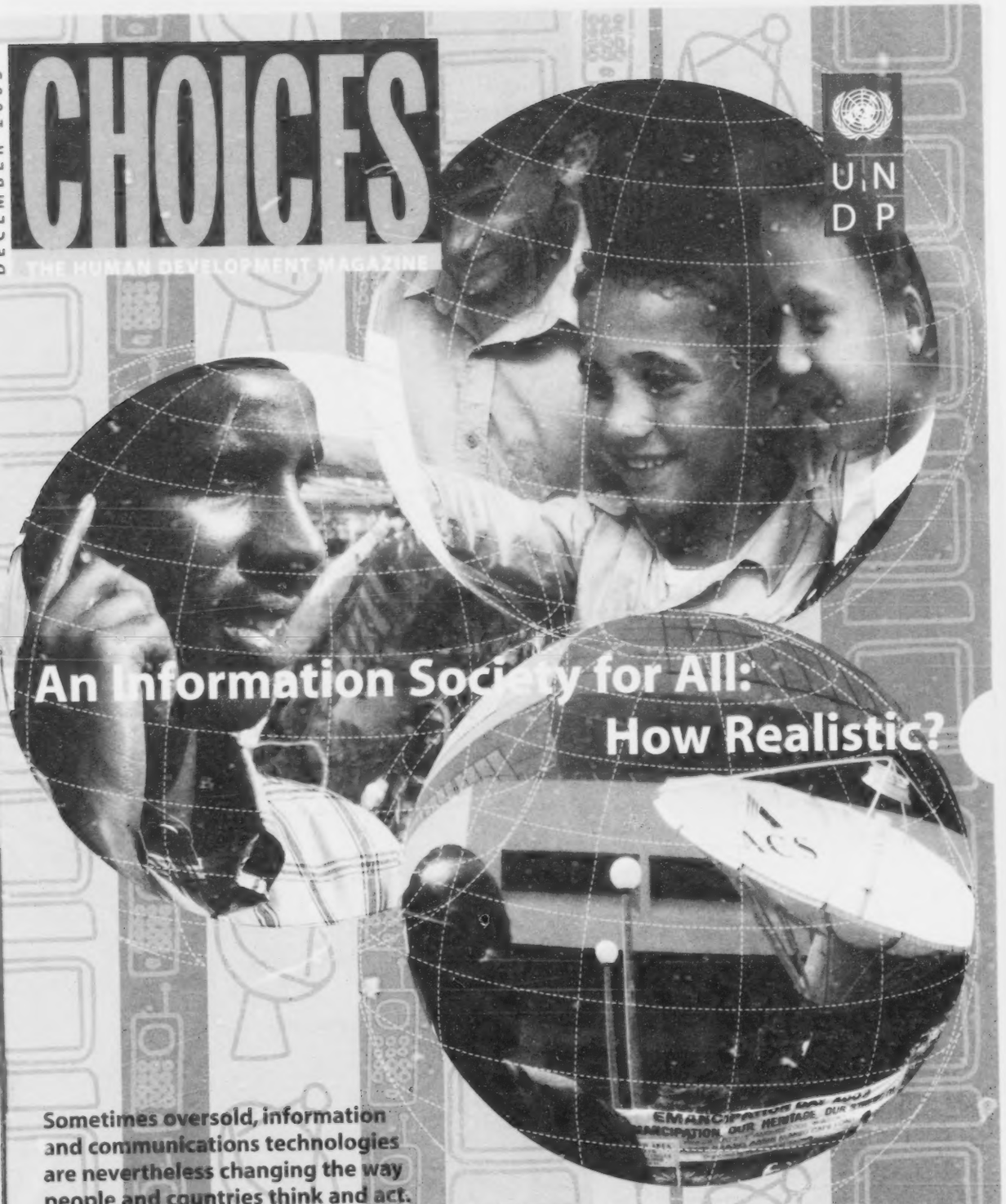
CHOICES

THE HUMAN DEVELOPMENT MAGAZINE

UNDP



An Information Society for All: How Realistic?

Sometimes oversold, information and communications technologies are nevertheless changing the way people and countries think and act.

Stories from Afghanistan, Armenia, El Salvador, Ghana, Nigeria, Somalia and more.

FROM THE EDITOR-IN-CHIEF

Development in the Dark

New York lost its power late on a summer's afternoon, trapping people in elevators and subways. As in other cities that experienced blackouts this August, in Canada, Italy, the United Kingdom, United States and parts of Scandanavia, New York's streets were gridlocked without traffic lights, thousands of people had to hike miles to their homes and families. The UN and UNDP were not spared and both had to evacuate their headquarters.

Djibril Diallo viewing a live webcast with Cisco Systems CEO John Chambers.

But the thing that hit people the hardest was the realization that all the high-tech, computer driven technologies did not work without electricity. The Internet was off limits, cell phone service was spotty, televisions were useless and about the only thing that did work was a transistor radio. Just like it is for millions in many developing countries.

For people who are plugged into the modern information society, the blackout was a rude awakening. It does not run without electricity—an argument often made against promoting high technology in many developing countries where the local power grids are still rudimentary at best.

Yet one night of darkness is not the same as decades. And while developing countries need assistance to produce food and provide proper healthcare and other basic services, they also need the tools that will help them develop faster. Development cannot take place in the dark.

There is a sense that the computer age has been oversold, a panacea, so to speak. And there is no doubt that there is a certain fascination with a seemingly endless supply of new gadgetry. But eradicating poverty will take more than just a keystroke, and real development will, in fact, take more than computers and fibre optics. But ICT will be part of the solution.

Malaysia's former Prime Minister Mahathir Mohamad, in an exclusive interview with CHOICES, (p. 24) quite bluntly says that if developing countries do not develop ICT, they will be left behind. Malaysia has been a leader among developing countries in promoting its ICT sector and its Cyberjaya—the Malaysian Silicon Valley—has been a model for other developing countries.

In this issue, we look at how ICT is promoting development, beginning with Afghanistan, where the Internet was banned just a few years ago. Starting from scratch, Afghanistan is trying out some of the newest wireless technologies to provide access to the Internet, while also providing training to people who want to use it.

Training is important as access in Ghana, where children are benefiting from mobile telecentres and where the country's courthouses are getting a technological make-over to speed the wheels of justice. In Armenia, the fact that not too many people own computers has not stopped the development of a national online community. In El Salvador, a Web site proved to be a major time and money saver as the country rebuilt the homes and communities that were destroyed by earthquakes two years ago. In Somalia, we see the phenomenon of the private sector wiring a country without a government—with many benefits and a good deal of chaos as well. And in Nigeria, we have a story about a volunteer in Turkey and a businessman in Lagos who teamed up to build an HIV/AIDS library in the volatile Niger Delta region.

CHOICES also explores how ICT is expanding people's access to government services in India; how facilities are being provided for the disabled in Bulgaria; how digital satellite radio is having an impact in Nepal; how online registration helped save a school semester in the West Bank; how women are using ICT skills to find jobs in Lithuania; and how reporters are learning new ICT skills in Honduras.

In each of these cases, ICT is helping people do something they could not do before. It is making life of the poor that much better, that much easier, all while it is providing new and undreamed of opportunities out of poverty.

Djibril Diallo

Cover: Cell phones in Somalia, left, Palestinian computer students, top, and satellite technology, bottom right, are changing development.
Photos: Finbarr O'Reilly/UNDP and Johnette Iris Stubbs

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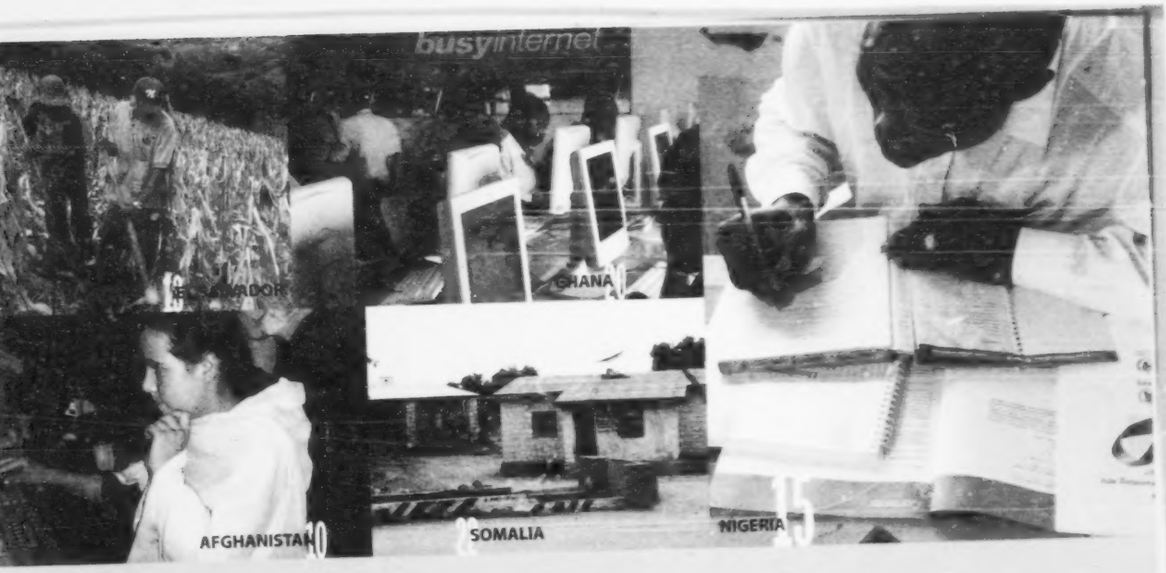

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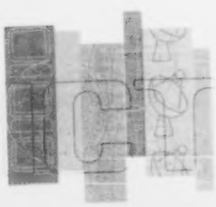

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Coming in March

Real human development requires democratic governance: Free elections, democratic institutions, fair representation, protection of basic freedoms and progressive economic and social policies. CHOICES will look at what makes good governments tick.

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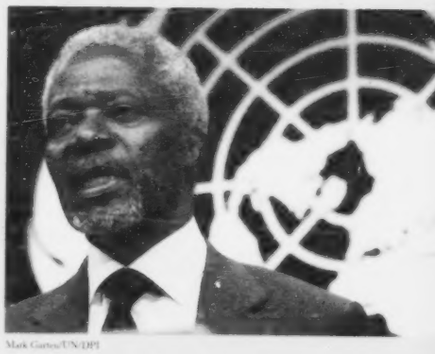
Annan Says Meeting MDGs is Only Part of Larger Problem



Mark Garten/UN/DPI

The Millennium Development Goals can still be achieved according to a progress report issued by UN Secretary-General Kofi Annan, but there are still big questions over whether other elements of the Millennium Declaration, particularly on peace and security, will be achieved.

"On the Goals themselves," the Secretary-General said, "there is some good news. Since 2000 we have forged a stronger consensus on what needs to be done. If we maintain and increase the momentum of the last three years, the Goals can be reached by 2015. But it depends on Member States being really determined to act on the commitments they have made."

But on peace and security, Mr. Annan said, "Events have shaken the international system. I am not even sure whether the consensus and the vision that the Millennium Declaration expressed are still intact."

Member States, he said, have been sharply divided about some of the most fundamental issues that the UN was set up to deal with. "We seem no longer to agree on what the main threats are, or on how to deal with them. And last August, in Baghdad, the United Nations itself suffered the most direct and damaging attack in its entire history."

UNCTAD Reports Slim Prospects for Global Economic Growth

UNCTAD's *Trade and Development Report 2003* reports that for the third consecutive year, the world economy is in a state of malaise, and little improvement is expected over the 1.9 percent growth registered last year. According to the Report, the world economy is now facing a widening deflationary gap created by deficient global demand. "There is a global glut in both labour and product markets, with too many goods chasing too few buyers and too many workers chasing too few jobs."

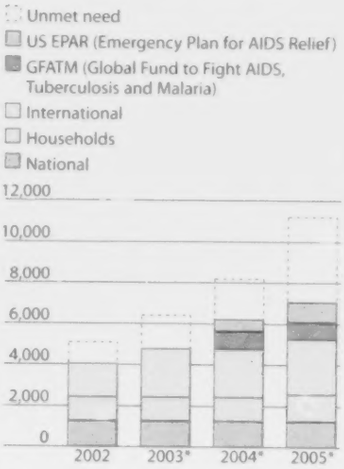
But developing countries appear to be weathering the economic downturn better. Asian economies have remained strong, and the transition countries posted four percent growth. Latin America, which had seen some economic contraction, is expected to do better in 2003; Africa, suffering from low commodity prices, is expected to struggle with only a handful of countries and appear likely to experience rates of seven percent or above. According to the report, this will make achieving the Millennium Development Goals a difficult task.

HIV/AIDS Goals Remain Elusive

The current pace of efforts to address the HIV/AIDS epidemic will fall far short of expectations and will not meet the goals set at the 2001 UN General Assembly Special Session on HIV/AIDS, according to reports recently released by the UN Secretary-General and UNAIDS.

ESTIMATED RESOURCE AVAILABILITY FOR HIV/AIDS 2002-2005

(US$ disbursements in millions)



*Projected

Source: UNAIDS

The HIV/AIDS goals are considered the underpinning foundation for meeting the Millennium Development Goal to halt and reverse the spread of the epidemic by 2015. Although some progress has been made, particularly in establishing national strategies to respond to the crisis, and public awareness efforts have been stepped up, there is still a large shortfall in funding for HIV/AIDS programmes. Current spending is less than half of what will be needed by 2005 and less than one-third of what will be needed by 2007.

"Today's reports are a dramatic wake-up call to the world," says Peter Piot, UNAIDS Executive Director. "While there has been some concrete progress, the current pace and scope of the world's response to HIV/AIDS remains wholly insufficient."

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Ghana Gets Standard & Poor's Credit Rating

Ghana became the seventh African country to receive a Standard & Poor's credit rating, with a B+ long-term foreign currency sovereign credit rating. The rating is a result of a new UNDP initiative to help sub-Saharan African and other developing countries to obtain credit. The new Ghana rating is comparable with the rating for Brazil and better than Indonesia or Turkey.

"UNDP intends to support countries in their efforts to mobilize resources from private capital markets, which are required to secure accelerated rates of economic growth and reduce poverty," said UNDP Associate Administrator Zéphirin Diabré.

Photo: Shamsir Zaman/UNDP

Ghana President John Agyekum Kufuor meeting with Standard & Poor's Ed Emmer and John Chambers.

"Sovereign ratings on the African continent are likely to double in the year ahead thanks to the UNDP initiative, which is well under way," said Konrad Reuss, Standard & Poor's credit analyst and Managing Director for Sovereign Ratings in Europe, the Middle East, and Africa.

Other countries that have received credit ratings include Botswana, Egypt, Morocco, Senegal, South Africa and Tunisia. Although many of the governments rated under the new initiative will not use their ratings for immediate access to international bond markets, these ratings will help to integrate African countries into international capital markets over the coming years.

Iraq Reconstruction Needs Put at $36 billion

More than 60 donor nations pledged US$33 billion in grants and loans at a pledging conference in Madrid. UNDP Administrator Mark Malloch Brown said he believed Iraq could convert quickly from a land of subsidies and state control to one of "rising incomes and market opportunity."

A World Bank/UN assessment of Iraq's overall reconstruction needs estimates that about $36 billion will be needed over the period 2004-2007. The assessment found that Iraq's building effort will require vast resources in 14 priority sectors to overcome nearly 20 years of neglect and degradation of the country's infrastructure, environment and social services.

Iraq reconstruction needs in vital sectors are vast.

Public resources were diverted to support the military and the ruling regime's power; poor economic and policy decisions took a toll; and conflict and international sanctions all combined to erode the standard of living for ordinary Iraqis. Development priorities, according to the report, must include strengthening government institutions, restoring critical infrastructure and core human services, and support for an economic and social transition that provides both growth and social protection.

Japan Promises $1 Billion for African Development at Tokyo Conference

Japan will spend $1 billion to improve education and health in sub-Saharan Africa over the next five years, Prime Minister Junichiro Koizumi announced in his opening address to the third Tokyo International Conference on African Development.

The conference, attended by representatives of 89 countries, including 23 Heads of State, concluded a joint declaration that pledged support for the New Partnership for Africa's Development, or NEPAD, which is an African-generated blueprint for development.

Japan Prime Minister Junichiro Koizumi at TICAD.

Mr. Koizumi said Japan fully supported NEPAD as it represents "the will of Africans themselves to make the 21st century the African century." The additional assistance, he said, would go toward meeting basic human needs and to promote economic growth.

Mark Malloch Brown told the Conference that the challenge of achieving the Millennium Development Goals remains most daunting in Africa. But he said, "It does not have to be this way," adding that the excuse of scarce resources could no longer be used. "At a time when billions are being pledged to Iraq, the argument that resources are not available is simply not true. What is missing is the political will."

US Rejoins UNESCO

The United States rejoined the United Nations Educational, Scientific and Cultural Organization after a nearly two decade absence. A flag raising ceremony at the agency's headquarters in Paris was attended by US First Lady Laura Bush.

The ceremony, at the start of UNESCO's 32nd General Conference, brings the number of Member States to 190. Of the countries that withdrew from the organization in the 1980's citing philosophical differences and management complaints, only Singapore has yet to rejoin. The US withdrew from UNESCO in 1984.

MARK MALLOCH BROWN

THE UNDP OUTLOOK

Unleashing the Benefits of Technology for the World's Poor

Across the world, information and communications technologies (ICT) are bringing sweeping changes that are affecting daily life, not only in richer countries, but also in the kind of places that UNDP works: the poorest countries on the planet. Where it took television and personal computers decades to gain mass usage, in only four years the Internet gained 50 million users. Today, close to 600 million people use the Internet and in least developed countries there is at least one telephone subscriber per 100 people, most likely a cell phone, which now outnumber landlines across Africa and in most poor countries. In barrios and farming and fishing villages, the Internet is replacing radio, and in Asia and Latin America, satellite TV has become the technology of choice.

But the potential of this revolution in new technologies to address the development challenges we face has still not been fully unleashed. With the right set of policies and activities, ICT could do far more. ICT plays a catalytic role not just in accelerating economic growth in local economies, but also in helping poor countries meet key development priorities, particularly the Millennium Development Goals, from halving extreme poverty to halting the spread of HIV/AIDS, to health and education. ICT is improving access and expanding services, cutting transaction costs, improving government efficiency and making development possible. The question is how do we leverage this technological revolution for a revolution in development that can make a real difference to the everyday lives of the world's poor?

The question is how do we leverage this technological revolution for a revolution in development that can make a real difference to the everyday lives of the world's poor?

The World Summit on the Information Society provides the international community with an opportunity to forge a consensus on these critical issues. Both at the first phase taking place this December in Geneva and the follow-up in Tunis in 2005, the Summit is a forum where we can collectively shape a vision for the information society, a vision I believe that should be based on how we can unleash the benefits of ICT so that it improves the lives of ordinary people everywhere. And on issues such as frameworks for Internet governance, investment and financing options to bridge the digital divide cost-effectively and speedily, as well as how to secure inclusion and firm up support for human rights and freedoms, this Summit can help ensure that ICT works for the poor as well as the rich. Because technology is not just a reward for successful human development; it is a tool for attaining it.

ICT is providing the tools that people need to improve their livelihoods. Even where people can't afford a computer, an Internet connection or a phone line of their own, communication costs have fallen so dramatically that more people are using telecentres and phone cards to get connected. Remote communities in the Solomon Islands are now connected through ICT, and new technologies are allowing banks and microfinance operations to broaden lending services to the poor in Bolivia, India and South Africa. Students in China and the Philippines are benefiting from long distance learning; farmers are learning about market prices in distant cities without a middleman, and men and women are being empowered to find jobs. The impact of the ICT revolution in reducing poverty is being felt right across the world.

The technological revolution has also been intersecting with another, equally powerful revolution—democratic governance. The Internet has helped fire a dramatic spread in democracy and citizen-to-citizen communication across national boundaries, in the process intensifying demand for and supporting the spread of transparent, participatory and more efficient systems of government worldwide. ICT offers real hope, both through the direct impact it can have on strengthening elections and other institutions and processes, particularly citizen input into decision-making, and indirectly by providing real opportunities and better services for citizens everywhere.

It is my hope that the days of sterile debate on whether new technologies are a luxury or necessity for the poor are over. The real challenge now for all of us, North and South, is to work together to identify and accelerate the real benefits technological advances bring to developing countries, while carefully managing the risks that inevitably accompany change. If we fail to use the World Summit on the Information Society to promote one of the best tools that we have at our disposal in the fight against poverty, we will have missed a major opportunity. ■

Mark Malloch Brown is Administrator of the United Nations Development Programme.

Grandiose Plans for a Wired Planet Yield to Pragmatic Aims

High-tech still seen as important tool to meet people's needs

BY LEON LAZAROFF

UNITED NATIONS, NEW YORK

At a time when much of the world is focused on war, terrorism and ethnic conflict, and most development programmes are aimed at poverty, famine and disease, thousands are scheduled to gather in Geneva in December for the first World Summit on the Information Society. Two years later, a similar gathering is scheduled for Tunisia.

There has never been a worldwide conference solely dedicated to the topic of using Information and Communication Technology—or ICT—to enhance development.

"We have more than enough conferences, that's for sure," says Stephen Browne, director of UNDP's ICT for Development Group. "The fact that this conference is happening at all is indicative of just how much governments want these projects to flourish."

For Anthony Wilhelm of the Washington, DC-based Benton Foundation, operators of the Digital Divide Network, the upcoming WSIS is a hopeful sign that ICT will return to the high position it held among development agencies, multinational corporations and the governments of developed countries.

When the Internet boom was riding high in the mid to late 1990s, Mr. Wilhelm recalls, the world's leading telecommunications companies unveiled ambitious plans to bring the Internet and wireless telephone to some of the poorest places on earth. "There was a real sense then that a very big difference could be made in a very short time through the use of these technologies," Mr. Wilhelm says.

world summit
on the information society
Geneva 2003 - Tunis 2005

UNDP itself saw this potential early on and has been actively engaged in this field since 1993. It has worked with developing countries and enlisted foundations, corporations and NGOs in supporting ICT for development projects. The overarching notion was that technology was more than an end in itself. Rather, it could be a means toward enabling people to gain access to critical development information, helping governments communicate with their people, assisting small businesses to get better prices and find markets for their products and improving health and education services.

Around the world, in places far from Silicon Valley and Washington, DC, the idea that ICT could serve as an integral part of development strategy was embraced by

COMPUTING

■ Between 1975 and 2000, the computing power per $ increased by 66,000 times. By 2010, this figure will reach 10 million.

governments, NGOs, domestic private sectors as well as multinational corporations. And by some measures, it has.

Through its "Tiger Leap" programme, access to the Internet became an integral part of Estonia's social and economic growth; the Grameen Bank's network of low-cost, pre-paid cellular telephones—the famous "phone ladies"—became a model now being tried in Mozambique and elsewhere. Surprisingly, Somalia, which continues to lack a central government, has experienced a proliferation of competing wireless companies, each agreeing to share in infrastructure development.

"There continues to be a lot going on," says Fred Tipson, executive director of the Markle Foundation's Global Digital Opportunity Initiative. "Name a country and you can find a dozen interesting projects going on. UNDP, the World Bank and a lot of grassroots organizations are doing many things."

The attacks of 11 September 2001 all but took ICT off the development map.

Trying to do too much too fast

But that initial wave of excitement has slowed as the economic recession in the West spread to other parts of the world and forced large telecommunications companies in particular to cut back on their investments. The attacks of 11 September 2001 all but took ICT off the development map.

"As far as ICT is concerned, there has been a giant retrenchment over the past two years," Mr. Wilhelm adds.

At about the same time, ICT was criticized for trying to do too much too fast. In some cases governments, companies and development agencies failed to devise projects that matched a nation's particular resources with its greatest needs, says Mr. Browne.

During the 1990s, many countries funded multi-purpose "Telecentres" or "Internet Cafés" aimed at providing Internet access, pay-by-the-call telephones and e-government services. In some cases, the projects reaped recognizable benefits to local business development and to the beginnings of e-government. But in other places, Telecentres proved unprofitable particularly when connectivity costs remained high and content was not sufficiently relevant to local populations.

"There's certainly been some disillusionment with Telecentres," says Mr. Browne. To get matters right, better training of personnel must take place, he adds. A country's regulatory and legal environment must be shaped to allow for communication technology to cheaply reach its widest audience. And most importantly, training, education and supervision must be ongoing.

ICT has helped people in developing regions

In many parts of the world—Bolivia, China, Malaysia, Senegal—farmers are starting to obtain current information about produce prices from either local radio broadcasts or by using a cell phone to speak to a contact at an urban marketplace. Such information prevents farmers from selling their produce at too low a price to middlemen who then turn a profit in the city centre.

Anand Tawker, director of Hewlett Packard's emerging market programmes in Asia and South Asia, says the company has funded a number of Internet community projects following a series of gatherings with a cross-section of local people, where those assembled identified the city's most pressing needs. They cited government accessibility, public health and education, economic development in agriculture and small businesses, and citizen empowerment, exemplified by community women's groups.

"Just making people aware of the very programmes that are designed for them is an essential step toward development," Mr. Tawker said. "The point is to bridge that information gap, and with that information, to improve the manner in which governments provide those programmes."

Digital divide still needs bridging

Nonetheless, the world's digital divide remains a difficult and seemingly intractable problem. Although the divide has closed somewhat in the past few years—largely as a result of China's astonishing economic progress—the gap between those who routinely use cellular phones and the Internet and those who don't remains vast.

It used to be that more than half the world had not made a phone call. While that remains true for many millions, the fastest growth rate for wireless telephone users is in Africa.

Because the infrastructure costs for wireless are about 40 percent of the cost of building a landline network, the telecommunications companies of many developing countries have chosen to expand their wireless operations. The use of pre-paid phone cards has been a major part of this breakthrough providing a new business model for extending services to the less well-off. Such plans prevent people from amassing bad debts or having to prove their credit worthiness to obtain a contract.

Along with regulatory changes and payphone liberalization, new ideas have also encouraged public access in many countries. Botswana and Senegal adopted franchise models at the national level and India has allowed small-time entrepreneurs to set up public phone booths, an idea that Mongolia has used to reach a population spread out over thousands of miles. Elsewhere, South Africa launched a massive programme to wire thousands of public schools and Brazil effectively proved that in urban areas, at least, such sites could be used for commercial purposes.

Still, the divide between North and South, between rich and poor countries and even within all countries, remains the overarching reality. UNDP's Radhika Lal points out that cellular and Internet access is largely concentrated in the capital cities. Rural and poorer areas of major cities

remain on the outside looking in. While cell phones and the Internet have become the touchstones of communication in the West, the radio remains for much of the world, the primary source of information.

In many countries, state-owned telecoms continue to monopolize communication services making it difficult to establish affordable Internet Service Providers or sell low-cost wireless services. New technologies such as "voice over IP" which could facilitate the provision of low cost telephony by sending phonecalls over the Internet are not yet legal in many countries. "Where the state continues to be the sole telecom provider and there is no competition, and the state is slow in investing in new telephony, actions that could be poverty reducing do not apply," says Mr. Browne. It is essential therefore to work with governments to assuage fears that privatization or even limited competition could deplete a government's largest revenue source.

But good intentions do not always produce good results. The most difficult problem when seeking to integrate ICT with development programmes is to determine which technology works best for a given country, infrastructure, culture and people. Sometimes, governments aim for too many projects, constructing a veritable wish list of technologies and equipment.

Peoples' needs eclipsed by focus on technology

"Governments have often focused more on the technology rather than on how to address the challenges involved in successfully utilizing these technologies to improve people's lives," adds Ms. Lal.

E-government is a case in point. On paper it looks great: to make information about government programmes widely available; to disseminate government forms over the Internet; to find ways to make it possible for people unaccustomed to bureaucracies to know where to get a loan, complete an applications process or locate the appropriate agency.

In fact, only about 30 percent of all e-government projects actually succeed, according to Ms. Lal. The reason for that, she says, is that too often programmes do not begin with an accurate picture of people's real information needs and are not sufficiently interactive with citizens. Therefore, millions of dollars are spent on "computerization" but too little attention is placed on how the technology can foster meaningful work and a greater service orientation.

The Markle Foundation's Mr. Tipson explains that rather than offering to set up a full suite of Internet and wireless capabilities, ICT project managers might do better to aim small. Instead of building an Internet connection at a school, teachers would obtain one computer and a few CD-ROMs that could detail a new curriculum and how best to teach it. "It's wrong to imagine the education revolution coming from surfing the Internet," says Mr. Tipson.

Looking ahead to the World Summit on the Information Society, Mr. Wilhelm says the conference is likely to serve as an opportunity to take stock of which ICT projects and strategies worked, and which have not. Coming out of the past two years in which many corporations cut back on IT projects aimed at the developing world, HP's Mr. Tawker emphasizes the importance of designing projects appropriate to the talents and existing technology of the people it is intended to assist.

"The fundamental premise of our work is that technology is not powerful in and of itself," says Mr. Tawker. "The success of these programmes comes when people recognize that there are real benefits, and they are willing to pay for these services because they see real value in them. Technology must address real life problems or these projects won't work." ■

The divide between North and South, between rich and poor countries and even within all countries, remains the overarching reality.

Leon Lazaroff is a freelance journalist who lived for many years in Mexico and Spain and has extensively covered development issues.

INTERNET

- There are 3.2 million new Internet pages every 24 hours.
- There were 200 million Internet users in 2000, 600 million in 2002, one billion by 2005.
- Highest percent growth in Internet users: Republic of Korea (zero growth in Internet users: Democratic People's Republic of Korea).
- In 1990, there were 300,000 Internet hosts, by January 171 million.
- Developing countries' share of Internet users: two percent in 1991, 23 percent in 2001.
- In 2001, there were six billion e-mails sent globally.

TELEPHONES

- In China, there are five million new mobile phone subscribers every month.
- Highest percent growth in mobile phones: Africa.
- Since 2000, new mobile phone subscriptions have been higher in the South than the North, yet...
- In 2001, there were four times as many fixed lines installed in the South as in the North, but....
- The 400,000 citizens of Luxembourg have more international bandwidth than the 800 million people in Africa.

The Information Age Dawns on Afghanistan

Computer terminals and Internet access provide tools for reconstruction

BY NICK MEO

KABUL, AFGHANISTAN

It could have been almost anywhere. Five girls, Muzhgan, 13, and her friends Basira, Mina, Sweeta and Freshta, were learning to draw on a computer. But the girls were in Afghanistan, a country that didn't even have an Internet address two years ago when the Taliban was still in power.

Not only was there no Internet address for Afghanistan under the Taliban, television was banned and videos were forbidden. Girls were not allowed to learn in schools and the country seemingly slipped back into time, isolated from the rest of the world.

But Afghanistan's capital Kabul is now changing fast with the country embracing the computer and Internet age in a hurry. As a result, new technologies are playing a major role in the reconstruction of the war-ravaged country, opening up an exciting new world for people keen to modernize with every tool available to them.

Students from the Ashiqan Arefan Elementary School in Kabul learning to use computers and the Internet.

Muzhgan's first computer-art project.

Although the country still lacks much basic infrastructure—roads, electricity, clean water—as well as stability and peace, the country does have its Internet address back, and Afghans are learning that beyond e-mail to relatives living far afield, the new technologies can advance development opportunities.

Muzhgan and her friends have been able to learn about computers at new telekiosks in Kabul, opened only this July. The four telekiosks are bright and attractive rooms housed in post offices, and are equipped with new computer terminals, Internet access, and two staff members called animators—carefully chosen so there is always one male and one female—available to give free computer training. Hourly Internet use was priced at 50 Afghanis—about one dollar—a third cheaper than the city's privately owned Internet cafés, and computer tuition was free.

The telekiosks, supported by UNDP, were an instant hit with Kabulis. There are now nine in Kabul post offices, and one at the airport. There are hopes for further expansion to outlying provinces. The project organizers invited pupils from four schools to attend the launch, choosing schools in less-advantaged communities like Ashiqan Arefan Elementary School near the smallest telekiosk.

The school is in Kabul's heavily-damaged old city where people struggle to survive in primitive conditions. Muzhgan and her friends attend lessons in tents as their classrooms were flattened by rockets years ago and potholed alleyways outside still wind through the ruins of buildings.

But the hunger for learning is strong here and like most Kabulis, the pupils are desperate to make up for lost time. After shyly trying out the computers the girls were soon getting the hang of it and Muzhgan quickly learned to draw computer art. She has produced some impressive artwork and now goes to the kiosks with her friends almost every day. "It's great fun and we are learning all the time," says Muzhgan, who has also taken her parents to have a look at this new technology.

Head teacher Khaliq Dad Khaliqi is hugely enthusiastic. "For 25 years we have lacked opportunities like this," he said over a cup of green tea in his spartan school office. "For years in Afghanistan we made do with telephones that worked by turning a crank handle. Often the wires went down in bad weather. But now I can easily send a message to my friend in Los Angeles. Believe me, this will change Afghanistan."

One of the aims of the project is to provide affordable Internet access to help Kabulis—and later Afghans in other cities—keep in touch with friends and families who fled the war to Pakistan or Iran, or further afield.

But it is also providing Afghans a portal to a wealth of information that would otherwise be difficult to access, especially through the all-purpose Web site http://telekiosk.moc.gov.af, financed by France and implemented by UNDP.

"We're getting 700 hits a day with people logging on to find out about government services, health, and job information," according to Karen Gray, a UNDP project adviser. "You can even put together your resume online, and there's tourist information on hotels and restaurants and useful phrases in Dari."

Many of the hundreds of telekiosk visitors have been young people who have used the Internet in exile in Pakistan, but they have also included a 70-year-old first time user and many children and women, some of whom push back their *burkhas* to use the keyboards. Women-only hours are now being considered.

Policeman Habib Jan is a regular visitor. He leaves his Kalashnikov rifle outside and spends hours learning Word and Excel. "This is a very good opportunity for me," he grinned.

The hope is that the Internet can provide a vital link between the Afghan Government and people—a long-standing problem in this huge country of poor communications. To further that aim, the Communications Ministry has been deeply involved and took over the project in October, although UNDP will continue to provide help through early 2004.

Training a new generation of Afghans to run Internet services in the future is also a key task, so the Cisco Academy was set up at Kabul University. Afghan-American IT expert

Faizel Hanif, 48, returned to Afghanistan after a 22-year absence to help set up the academy. "I came to do my duty," he laughed.

CISCO Academy offers advanced networking and technical delivery training, and graduates are serving as mentors to others.

The programme has helped train students such as 18-year-old Sonia Ziaee, and Labila Akbiri, 19, who returned to Kabul from exile in Pakistan. "Before Cisco, knowledge like this was not for women," Ms. Ziaee said.

"We are studying hard because we want to do something for our country." They have been learning basic networking—connecting to the Internet—and in Kabul's battered and shrapnel-scarred campus they are learning on new equipment with the same curriculum as they would have in Singapore or the United States.

The young women were proud of blazing a trail. "Our families are very happy for us to do this," Ms. Akbiri adds. "It is a very bright future. Everybody in Afghanistan wants to learn about computers."

Afghanistan

AT A GLANCE

Population: 22,083,000

Area: 652,000 sq km

No. of telephone mainlines per 1,000 people: 1

No. of cellular subscribers per 1,000 people: 0

Daily newspapers per 1,000 people: 5

Radios per 1,000 people: 114

Television sets per 1,000 people: 14

Sources: Human Development Report 2003, UNDP Global ICT for Development Factbook, World Bank ICT at a Glance tables

Students attending the Cisco Academy at Kabul University.

Antennas atop Communications Ministry in Kabul. Because of a total lack of infrastructure, Afghanistan has adopted some of the latest wireless technologies.

Instruction at the Cisco Academy. Graduates become mentors to others.

Right: Kabul policemen check their Kalashnikov rifles at the door before using the Internet kiosk.

Starting from a blank slate

While every country has an Internet address, such as .uk for the United Kingdom or .za for South Africa, Afghanistan under the Taliban had disposed of the rights to its domain name, .af.

According to Marc Lepage, a UNDP Regional Information Manager, retrieving Afghanistan's address required considerable detective work. No one, he says, knew quite who owned the country name and before government ministries and businesses could use the domain name, the present owner had to be found and the case for ownership had to be watertight. Working through international telecommunications organizations, the ownership of the address was traced to a vanished businessman who had close ties to the Taliban. In February 2003, after a year of work, Afghanistan regained control of the .af domain name.

"It is very much a symbol of Afghanistan coming back on to the Internet scene," says Mr. Lepage. "It was personally very exciting too—an adventure on the Internet's last frontier."

According to UNDP Resident Representative Ercan Murat, "For Afghanistan to recover .af is like putting a flag up in cyberspace, saying 'we exist.' " Mr. Murat, a veteran of countries like Azerbaijan, Bangladesh and Kyrgyzstan, said Afghanistan's fragile post-conflict situation has been his toughest posting but Afghans have impressed him with their thirst for learning about the latest information technologies.

"I think they are going to catch up faster than we think. People in the outside world forget that Afghanistan was a progressive country in the 1960s and 1970s."

Working from almost a blank slate in Afghanistan might actually help the pace of development. "Because of poor infrastructure here, landlines were not an option," says Mr. Lepage. "So we have used wireless. Afghanistan can learn from other countries and leapfrog ahead. The fact we are starting very late here allows us to use the best most updated policy."

In mid-2003 there were just a few hundred Afghan Web sites and only one to two percent of the country's population has access to a computer, but strong growth is expected. To help Afghanistan get back online, UNDP has worked to standardize keyboard characters in the two main languages, Dari and Pashto, a complex process involving linguists as well as technical people.

Technical workshops have been organized to introduce the new system to Afghan software developers and UNDP has approached corporations such as Microsoft, Sun and Apple to produce software in Dari and Pashto.

Plans for the future include establishing a system to transfer funds electronically, a measure that would allow government employees to be paid directly and that would cut down on opportunities for corruption. There are also plans to increase the use of ICT in government by providing forms and information online. ■

Nick Meo is a freelance reporter based in Afghanistan who has written for newspapers including The Daily Mirror, The Guardian *and* The Sunday Herald *as well as for the Associated Press.*

The Cisco Academy has benefitted from Afghan instructors returning after long absences from the country.

El Salvador Earthquake Reconstruction Aided by Internet

Web site data helped speed planning and reduce costs

BY CHRISTIAN GUEVARA GUADRÓN

SAN RAMÓN, EL SALVADOR

Little was left standing in this town on 13 January 2001 when a major earthquake struck, and what was still intact was gone just a few weeks later, when a second shock hit. Eugenio Sujsuchit's new house became part of the rubble, and he, along with his wife and two daughters, were among the newly homeless.

Almost 1,300 low-income Salvadorans died in the earthquakes, more than 7,000 were injured. Some 140,000 dwellings were destroyed, and all told, the earthquakes caused economic losses amounting to more than US$1.6 billion, according to El Salvador's *Human Development Report 2003*.

The Sujsuchit's did rebuild, but what the family did not know was that information on the rebuilding of their community was actively posted on an innovative on-line information system called *Reconstruir* (www.reconstruir.org.sv).

The purpose of the portal, created with the support of UNDP, was to consolidate and distribute the immense quantity of information generated by the various actors involved in the reconstruction. It also helped demonstrate the accountability and the status of many projects, and allowed those involved to know in which locations work was in progress and in which it was not.

The Web site marks one of the first times in Latin America that information and communication technologies played a large part in a national reconstruction process.

The *Reconstruir* site allowed NGOs participating in the reconstruction effort to save money by providing them with essential information to start the projects. "We collected all that information in order to plan," says Luis Sanchez, a member of CARE. "That helped reduce our costs because information was centralized and there wasn't the need to pay consultants anymore." According to Mr. Sanchez, *Reconstruir* also helped save on the costs of production and planning of reports and documents regarding finalized or executed projects.

As the reconstruction effort evolved, different organizations quickly started to make good use of *Reconstruir* and in turn, they started to voluntarily provide the results of their work or research in order for it to be disseminated.

The Sujsuchits outside their rebuilt home. Information about rebuilding San Ramón was posted on the Internet and used in reconstructing other communities.

A national emergency

Recalling the collapse of all the dwellings in San Ramón, in the province of Sonsonate, one of the few indigenous communities still in existence in El Salvador, Mr. Sujsuchit says, "I had only recently finished my house, but the earthquakes totally destroyed it. The same thing happened to everybody else."

According to the Vice-Minister for Housing of El Salvador César Alvarado, 20 percent of all homes in the country were destroyed. Most of them were made of adobe, a traditional and inexpensive type of building material in Central America, based on clay and wood, but which offers no resistance to seismic shocks.

After the earthquake hit, international organizations began providing financial support to the different local NGOs and to the government in the process of rebuilding the country. "International cooperation provided 80 percent of the funds," explains Mr. Alvarado. Two and a half years after the earthquakes, according to an official estimate, El

El Salvador

AT A GLANCE

Population: 6.3 million

Area: 21,040 sq km

Human Development Ranking: 105 of 173 countries

No. of telephone mainlines per 1,000 people: 102

No. of cellular subscribers per 1,000 people: 134

No. of personal computers per 1,000 people: 19

No. of Internet users per 1,000 people: 23.4

GDP per capita: $5,260

Sources: *Human Development Report 2003* and *UNDP Global ICT for Development Factbook*

The Reconstruir Web site, still maintained and updated, established itself as the principal reference site on the El Salvador rebuilding process.

Salvador has received aid exceeding $350 million. So far, 84,000 dwellings have been rebuilt, leaving 50,000 houses still to go.

A plan to rebuild

In conjunction with the other members of his community, and through an NGO, Mr. Sujsuchit requested help from UNDP's El Salvador office. Fabrizio Brutti, a project coordinator, drew up a comprehensive reconstruction proposal for the community of San Ramón.

The UNDP proposal went beyond rebuilding the damaged infrastructure to include provisions for drinking water, electricity and latrines. In addition, it included a new approach: risk management to ensure that the population would not be impacted in the future by foreseeable natural threats. In just a few months, 33 dwellings were constructed at a cost of less than $1,500 each.

In addition to the reconstruction of San Ramón, UNDP also supported a study on sustaining economic and social development in Sonsonate, as well as a complete investigation into the hydromorphological threats in the region. "This was a pilot experiment for us, which we hoped to be able to replicate or share. The important thing was to avoid reinventing the wheel in other areas or other projects," concludes Mr. Brutti.

The Internet, a powerful tool

While supporting rebuilding in the province of Sonsonate, UNDP looked for the best way to avoid losing all of the information and knowledge being generated during the reconstruction. UNDP, together with a team from the UN Office for the Coordination of Humanitarian Affairs, had set up an information system in order to deal with the earthquake emergency (www.earthquakeelsalvador.org.sv). But once the emergency phase was over and the reconstruction phase had begun, the need to create a development portal became evident.

"The information being generated was important and it needed to be circulated rapidly; and for that purpose the Web is ideal," says Clemente San Sebastian, the programme officer in charge of the *Reconstruir* project.

UNDP together with Infocentros an independent organization whose goal is to enhance people's development by facilitating access to technology, laid out the necessity of the Reconstruir Information System project to the Development Gateway Foundation, a division within the World Bank. The proposal was accepted.

"*Reconstruir* was an interesting model for the way in which organizations from different sectors of society can use the Internet to work together and solve real development problems," says César Yammal, Development Gateway's Development Portal Coordinator for Latin America.

The *Reconstruir* Web site opened for operation on 22 September 2001 and in a very short time established itself as the principal reference site on the El Salvador rebuilding process, recording more than 40,000 visits. The success of *Reconstruir* was largely due to an Editorial Board that comprised 12 recognized institutions, both governmental and non-governmental, which were taking part in the reconstruction process. "The cooperation with the other organizations was extremely beneficial to the process," explains Vice-Minister Alvarado.

The various organizations voluntarily handed over the results of their work or their research for dissemination. In this way, knowledge was broadened. For Development Gateway the coordination among different institutions was an important and successful experience, which it will now attempt to replicate in other countries of Latin America. "For example, in Guatemala, plans are being made to work with similar development communities," says Mr. Yammal.

Mr. San Sebastián says he is satisfied with what was achieved by *Reconstruir*. "One of UNDP's objectives is to make use of ICTs in support of development," he explains. And Mr. Brutti adds that the work carried out in the indigenous community of San Ramón can be utilized in other regions by way of information exchange through the Internet.

"As well as the obvious benefits for the country, such as greater efficiency in the rebuilding effort, of equal importance are the lessons learned and distributed to other countries of the region, meaning that other countries have learned from this experience in El Salvador," Mr. Yammal says.

While Mr. Sujsuchit and his friend Gabriel Pérez, an enthusiastic community leader in San Ramón, have never worked on a computer nor navigated the Internet, they are now looking forward to a Web site for all the indigenous communities of Sonsonate. "They told us that here we will be able to sell our handicrafts and increase our income. We will be able to show our projects and look for people interested in helping us," they said after learning what had been achieved by the development portal. ■

Christian Guevara Guadrón is a reporter for El Faro, an electronic review, in San Salvador.

Eugenio Sujsuchit tending his fields. Although he has never used a computer, he hopes a Web site will help sell indigenous peoples' products.

Online Volunteer in Turkey Helps Build HIV/AIDS Library in Nigeria

Armed with facts, villagers work to halt spread of epidemic

BY TONY IYARE

MGBALA AGWA, NIGERIA

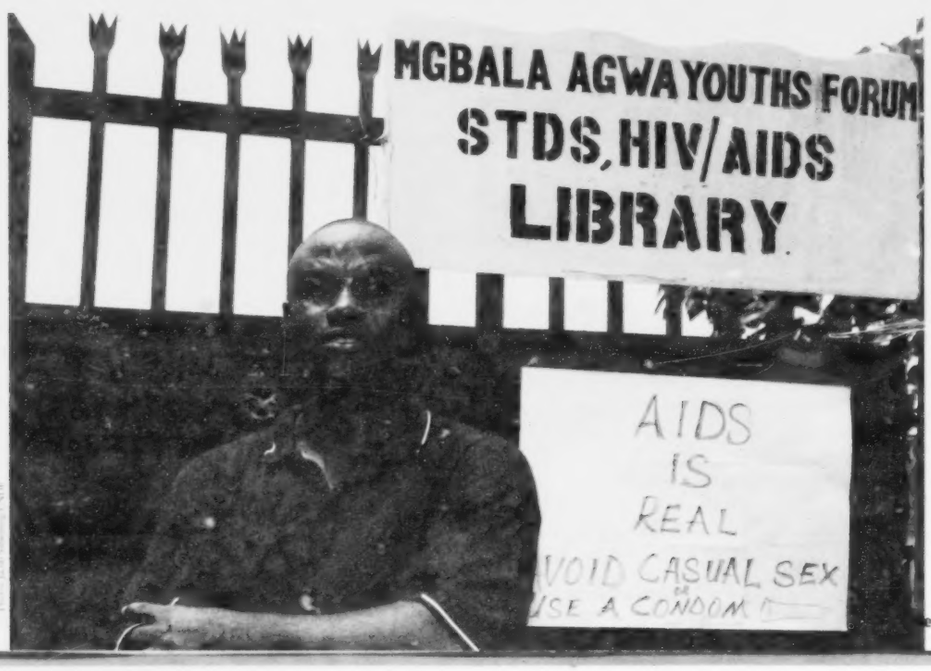
No one is sure just how many people have died due to HIV/AIDS in this town of 15,000 but to the people who live here, the deaths are adding up. The rising death rate here as well as across sub-Saharan Africa, where 29 million people are living with the disease, were enough evidence for 36-year-old Nduka Ozor, a Lagos-based business man and coordinator of the community's Youth Forum, that people needed to get the facts about the disease.

Working with online volunteers from the United Nations Volunteers and NetAid, Mr. Ozor has been able to stock a library at the village health centre with reading materials on HIV/AIDS and other sexually-transmitted diseases. Mr. Ozor found out about the UN Online Volunteering Service (http://www.netaid.org/ov) while surfing the Web, registered, and was able to find volunteers.

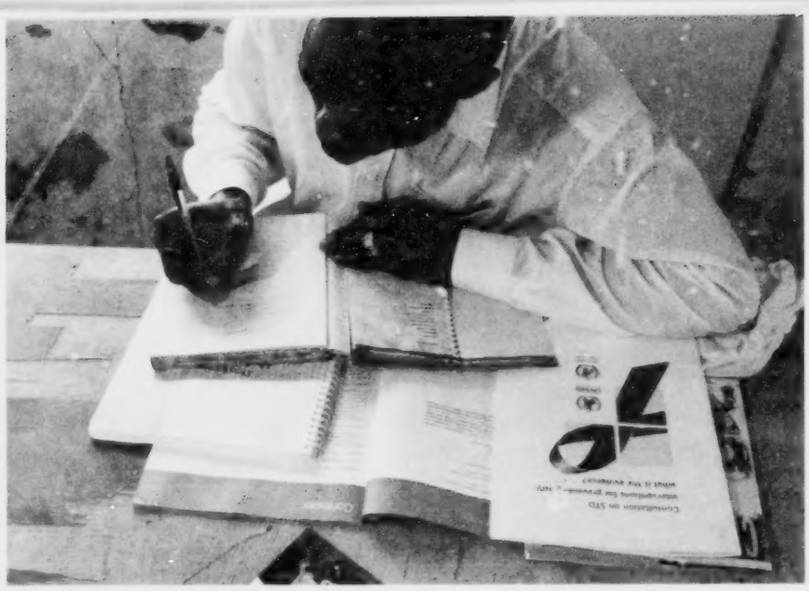
"I conceived this idea in June 2001 after seeing the alarming rate of deaths in my village. I got in touch with online volunteers to support us in our programmes to educate our people and we got more books than needed," Mr. Ozor says.

Initially, his idea was not well received. "When I first mentioned the idea of educating the community about the negative effects of HIV/AIDS at the village assembly, I was almost booed and jeered," he recalls. "Some locals even thought I was out to expose their murky extramarital affairs to their wives," he says.

Some 4,133 kilometres away in Istanbul, Turkey, Yasemin Gunay, a 21 year-old engineering student at Bosphorus University, was the first to respond to a Web posting for volunteers.



Nduka Ozor, a Lagos businessman, outside the HIV/AIDS library that was built by donations organized by online volunteers.



Dickson Mgborokwu, a student, using the library for a school assignment.

"I found an assignment that I had in mind right away," Ms. Gunay says. "Mgbala Agwa had posted an assignment for online volunteers to search for book donors for their newly opened library."

Today there are about 3,000 volumes that line the shelves of the tiny library, which is housed in a closet-sized room in Mgbala Agwa, a town that can be reached via a five-kilometre dirt road that joins the main highway to Onitsha, a major market in the south-east, the nexus of Nigeria's oil industry in the stormy Niger Delta region. This Igbo homestead is located about 700 kilometres south-east of Lagos, Nigeria's commercial capital, and sits on table-land in a green belt spiced mostly by palm and gmelina trees. Its vast green and serene nature and motley collection of thatched houses were obviously spared from the devastation wrought by the three-year-old Nigerian Civil War, which raged between 1967-1970.

The setting is lush but the standard of living is low in Mgbala Agwa, five km off the major highway.

The library, along with a local HIV/AIDS awareness campaign, have helped slow the advance of the disease in Mgbala Agwa, which is in Imo State, where the HIV/AIDS prevalence rate is 4.2 percent out of a population of 3.3 million. That rate is expected to rise to seven percent within two years.

Online volunteers coordinate donations

Donations to the library, books and computer CD-ROMS, were coordinated by online volunteers under the aegis of a service run by UN Volunteers and NetAid, a non-profit organization. In addition, the project has been supported by various organizations, including the World Health Organization, UNAIDS, Johns Hopkins University, The Hesperian Foundation and other organizations based in Australia, Canada, India, South Africa, the United Kingdom, the United States and Zambia.

After several e-mails from Mr. Ozor outlining the needs of the new library, Ms. Gunay established an online Yahoo group that allowed various volunteers to communicate and share files. Through Ms. Gunay, who spent close to 1,000 working hours on the library project, the efforts of several volunteers were coordinated and the various outreach activities aimed at organizations and authors produced significant contributions.

Ms. Gunay believes that through the books, the people of Mgbala Agwa "will be more cautious and the new generations will have more knowledge about how HIV/AIDS is threatening their lives."

NetAid Online Volunteering, a service jointly managed by UN Volunteers and NetAid, has been offering volunteers the chance to do "virtual fieldwork" since February 1999. According to Jayne Cravens, who heads up the service at UN Volunteers, online volunteering allows people to become involved in UN Volunteers without having to leave their homes and helps to support non-governmental organizations working in the developing world. Online volunteers can perform a range of important tasks such as fundraising, Web site building, translating, research and writing, and marketing—basically anything that doesn't require a physical presence in the field. Working by e-mail and telephone, UN Volunteers and NetAid offer guidance and ideas to volunteers and host organizations alike.

NetAid's Online Volunteering programme manager, Benjamin Stokes, explains that to benefit from the initiative, organizations have to show their non-profit status, confirm that they are working on development issues in developing countries and express willingness to work with online volunteers. Mr. Stokes adds that the commitment to working with volunteers and integrating them into an organization is key to maximizing the value of online volunteers.

"Our job is working to raise awareness about extreme poverty and offer people concrete ways that they can help

improve the lives of the world's poorest people," Mr. Stokes says. "Online volunteering is a great way to get people involved in this cause."

Putting the library to work

Loveth Egbulugha, a high school student, has been a regular caller at the library every Saturday and Sunday for two months. "Since I've been coming to the library, I've come to grasp with the reality of what HIV/AIDS is about, ways of contracting it and how to prevent it. I've also read about gonorrhoea."

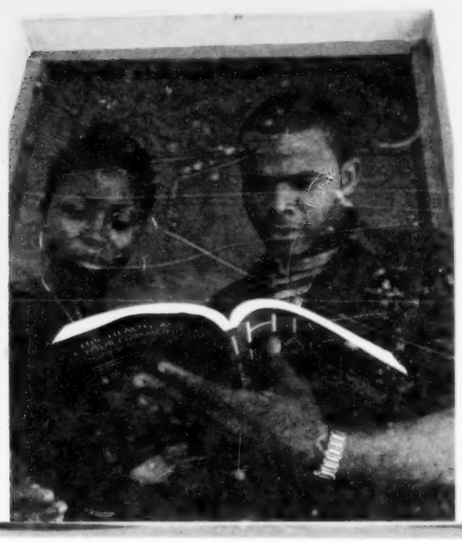
Perusing the book *Making an Impact in HIV/AIDS* by Jocelyn Dejong while clutching *How to Write a Radio Serial Drama for Social Development: A Script Writer's Manual*, Ms. Egbulugha, 21, says she initially paid little attention to the local campaign against HIV/AIDS. "One day I came to visit someone who gave birth to a baby at the Health Centre and decided to check the books. I found out that they had interesting books and have been visiting twice a week ever since."

Dickson Mgborokwu, 20, a student of Urban Development Secondary School in the nearby town of Owerri, says after he was given an assignment on the origin of HIV/AIDS, he rummaged through the library of Alvan Ikoku College of Education, a prominent teacher training school. But he was unlucky in his research until a student directed him to the library at Mgbala Agwa.

"I got more than enough materials about the origin of HIV/AIDS, how you can treat it in the early stage, how it can be controlled and how it can be prevented," says Mr. Mgborokwu, who now visits the library during his lesson free period on Tuesdays and Sundays.

John Smart Anumaka, 24, a student of Political Science

COVER YOURSELF AGAINST AIDS



Books for the library were solicited by online volunteers around the world.

The Mgbala Agwa Library has become a major part of efforts to reverse the spread of HIV/AIDS.

of Imo State University, says the library has been useful in providing materials to enrich his project on Third World's Nations View of HIV/AIDS. "When my supervisor picked this topic, I stared to the skies thinking how I will get the materials to write the project," he says. "Then I came here."

Anselm Uche Ononogbo, 30, President of Mgbala Agwa Youth Forum explains that because of financial constraints, no one is in charge of the library full time. "We rotate it among members of the executive committee on a weekly basis. We also have some volunteers who usually assist on weekends." Despite the absence of a librarian or a catalogue, "no book has been pilfered, lost or defaced," he says.

Mr. Ononogbo wishes for a bigger library and more shelves to hold all the books belonging to the Youth Forum. "We need a bigger library and shelves to keep the books. Since the world is a global village, there's need for computers, Internet facilities, photocopy machines, and so on."

For a community whose local economy centres largely on subsistence farming that hardly produces enough to meet the needs of the people, and where water, paved roads, electricity and other social infrastructure are very scarce, the library has become an impromptu meeting place, and provides some refuge for the teeming army of jobless youths who tend to congregate near the library there to meet and share ideas.

Mr. Ozor is overwhelmed by the volume of books his campaign has elicited and he's planning a bigger project. He is now thinking of expanding the scope of the library beyond the community because of the magnitude of books received from different international organizations. To give some bite to Mr. Ozor's pet idea, he is thinking of floating an NGO to embark on a national campaign. "Since the books we got are beyond our scope, we now want to expand our work to touch the lives of other Nigerians." ■

Tony Iyare has been a stringer for The New York Times *in Nigeria for 11 years.*

Nigeria

AT A GLANCE

Population: 117.8 million

Area: 923,768 sq km

Human Development Ranking: 152 of 173 countries

No. of telephone mainlines per 1,000 people: 5

No. of cellular subscribers per 1,000 people: 3

No. of personnal computers per 1,000 people: 7

No. of Internet users per 1,000 people: 2

GDP per capita: $850

Sources: *Human Development Report 2003* and *UNDP Global ICT for Development Factbook*

Free E-mail Service Creates Online Community in Armenia

Computers are too expensive but e-mail addresses are free

BY JOHN HUGHES

YEREVAN, ARMENIA

When UNDP's ICT specialist Tigran Nazaryan and others began planning an Internet access programme in 1996, they were faced with a telecommunications infrastructure that was so unreliable that it offered no guarantee of a connection for a simple telephone call.

At that time the only public access to the Internet in the country was at the Arminco, the country's first Internet provider, which, in a brilliant twist of irony, was located on the third floor of a building that once housed the communication's post for the Communist Party.

Today in Yerevan, a half-mile walk to that same Arminco office would take a person past dozens of Internet cafés. In an economy where more than half the country lives below the poverty line, only the privileged have Internet connections at home. The relatively-inexpensive Internet cafés (at about US$.60 cents per hour) therefore become the point where many Armenians can meet each other and the rest of the world online. And when they log on, most get connected to the world through a Freenet (www.freenet.am) account.

Photo: Robert Magnuson/UNDP

Violet Grigoryan, editor of literary online magazine *Bnagir*, says the publication would not be possible without Freenet.

Right: Internet café in Yerevan.

On a recent afternoon ICT for Development project coordinator Artashes Darbinyan checked the statistics and found 21,053 active accounts. According to Mr. Nazaryan, Freenet gets about 100 new applications for service per day, of which about half are approved, depending on information provided by the applicant.

Mr. Darbinyan explains that the number does not represent actual users, as one person can have more than one account. But he says even 10,000 is a lot when, according to estimates, there are only 50,000 computers in the entire country. "This is the community for modern Armenia," says Mr. Darbinyan.

Built to serve Armenian speakers

Freenet helped build a community because it was the first Internet Service Provider offered in the Armenian language. When Freenet first appeared, there was no Internet protocol that read Armenian. In 1998 Freenet created National Language Support, a programme so successful, it became the standard for Armenian language accessibility. Before then, Armenian could be written in Word documents, but Russian was the Internet language of the country.

Whatever success it might claim for its technical merit or language accessibility, the undeniable appeal of Freenet is its very name. It is free. In Armenia, unlimited Internet access costs about $50 a month and the official average income is about $30.

Through freenet.am, "the engine was provided for people to be able to use the Internet in Armenia," says Mr. Darbinyan. "The general belief was that everyone has the right to have an e-mail address," he says, adding that this idea was at the heart of the UN's National Information Infrastructure for Sustainable Development Programme.

In 2000, UNDP decided that Freenet could be used for more than only free e-mail and free Internet access. The site that started as a cyberspace postal service has now evolved into a clearinghouse of sorts for Internet-related

Freenet offers free online access and an online community for Armenian speakers.

matters ranging from personal Web pages to political forums. Significantly, a large number of non-governmental organizations use Freenet as the vehicle for promoting their programmes.

Putting citizens in touch with the government

One of Freenet's first expansions was to create "Forum.am," with a facilitator who monitored debates and commentary on issues such as human rights and on constitutional amendments. But more recently, it launched programmes designed to put citizens in touch with their government through "e-Governance."

In the northern town of Vanadzor, Freenet started its e-Governance programme (www.region.am) in cooperation with Project Harmony (www.projectharmony.am), an agency that administers US State Department technology grants, and which had established Internet service in the northern region. While Freenet created a means for providing government-related information, Project Harmony created a way of delivering it.

Together, says Project Harmony country director, Siobhan Kimmerle, they are connecting average citizens with their government—no small effort in an environment where democracy is weighted by the post-Soviet legacy of oligarchic rule.

Project Harmony has provided computers at secondary schools in Vanadazor; from 6 to 8 pm are "community hours," a time when Freenet associates help residents develop Internet skills, including using the e-Governance options.

"The main idea is to see interaction between government and the people," says Mr. Darbinyan. In a future that might appear overly optimistic in present-day Armenia, Freenet hopes to provide online services for such things as getting automobile license plates and managing public utility accounts.

Opportunities for cultural and artistic expression

But Freenet also provides opportunities for cultural and artistic expression. The literary magazine *Bnagir* (www.bnagir.am), found a Website home for its publication at Freenet.

Bnagir editor Violet Grigoryan says the literary magazine switched its online publication to Freenet three years ago, saving itself the $60 per year domain fee. There is no censorship, she says, but the site does have a warning that some content may be offensive or inappropriate for minors.

Response from the Freenet audience was immediate. "Right away," says Ms. Grigoryan, "a reader placed a story and there were a lot of opinions and a variety of comments."

Ms. Grigoryan says she isn't sure how many readers the site gets, but she is sure that it is a favourite with Armenia's three-million-plus Diaspora. "A lot of people in Diaspora use the Internet as their connection to Armenia," the editor says. "The Russian Diaspora is especially active with their opinions."

Freenet has also expanded to take its service to the people. In Yerevan, at the UNDP office, and in the Lori region, it has created Freenet Public Access Clubs where, for 1,000 Drams (about $1.70) a member can visit the Freenet centre 12 times for up to one hour per visit (an average of about 14 cents an hour; compared to about 60 cents per hour in Internet cafés).

Artashes Darbinyan, site coordinator, says Freenet has evolved from an e-postal service to a Web clearinghouse.

Mr. Darbinyan says a significant function of Freenet is that it offers "openness." As last February's presidential elections proved, freedom of speech, like most facets of life in Armenia, is still finding a foothold in the emerging democracy.

"Certain television channels have been closed," says Mr. Darbinyan, because of "oppositional" reporting, "but their Web sites are still there."

"The Internet gives the feeling of democracy. It is very important for developing a civil society. It gives a certain level of transparency and maybe, eventually, there will be less corruption," says, Mr. Darbinyan. "The Internet gives that openness. Real freedom is being provided." ■

John Hughes is an editor for ArmeniaNow, an independent weekly online news magazine.

Satellite dishes are now found on many Yerevan buildings.

Armenia

AT A GLANCE

Population: 3.1 million

Area: 29,800 sq km

Human Development Ranking: 100 of 173 countries

No. of telephone mainlines per 1,000 people: 140

No. of cellular subscribers per 1,000 people: 7

No. of personnal computers per 1,000 people: 7

No. of Internet users per 1,000 people: 18.4

GDP per capita: $2,650

Sources: *Human Development Report 2003* and UNDP Global ICT for Development Factbook

Ghana Pursues Justice and Development Through Computer Training

Demand for computer and Internet training surges as information society takes root

BY KWESI WREKON OBENG

ACCRA, GHANA

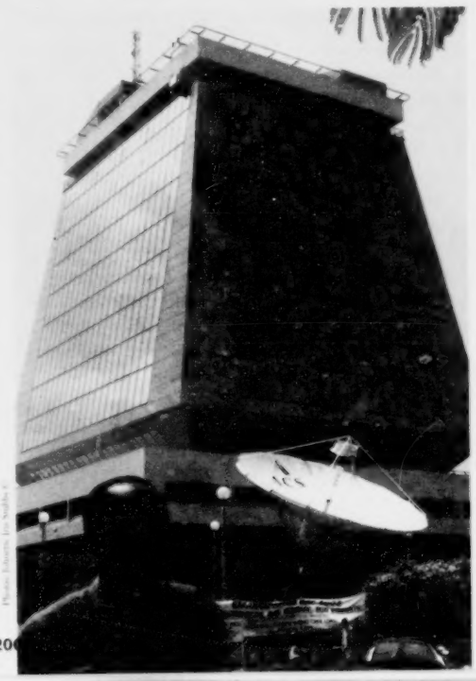
A call comes through his brightly coloured 2.5-inch-long cell phone while Clive Enchil, 33, is having a drink with his wife and friends on a Friday evening at a local bar in Tema, Ghana's port city.

"Oh Enchil! Our server, the design machine, has collapsed but we have to go to press tonight. Could you come over?" the caller from an Accra-based national bi-weekly newspaper pleaded.

At the time of this incident, in 1999, Mr. Enchil was one of only a few trained computer troubleshooters in the region who could handle the emergency call, although he was 30 kilometres away at the time. And it was up to him to make the repair.

Mr. Enchill recalls that there were far fewer computer engineers and technicians, computers and ICT training schools and businesses then. Today, every other office or shop in Accra and other large Ghanaian cities is either an ICT training school or dealer for computers, mobile phones, radios, televisions and Internet cafés. Not only is it trendy to have technological skills, but many Ghanaians are making a living from these skills. ICT is speedily colonizing every facet of life in this country from classrooms through farms, from government agencies to the judiciary.

But the country still must on improve its basic telephone system. Of the country's 600,000 phone lines, only 283,000 are land lines, and most are unable to carry large amounts of data.



ACS, a US-based company, has invested significant resources in back office operations in Ghana to handle everything from hospital records to parking tickets.

Photo: Edwin Jin Wolfe-I

Building a Private Sector from the ground up

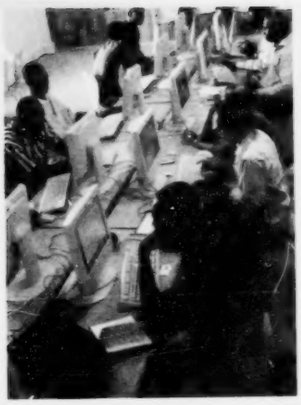
Ghana has been working to establish itself as the ICT gateway to West Africa, and a sprawling "Kofi Annan Centre for Excellence," a one-stop show ICT enclave, is near completion in the capital. Already, a number of highly trained professionals have returned from India to serve as the backbone of the Centre, which is structured along the lines of Malaysia's Cyberjaya. The government paid the bill for the trainee trainers while they were in India.

But a strong high-tech sector needs a skilled labour pool and Ghana is working to train the next wave of workers. But most people in Ghana cannot afford their own home computers and many do not have access to training, computers or the Internet.

Jerry Wormenor, 24, an agricultural and general science teacher at the Ring Road East Junior Secondary School in Accra had not touched a computer until one of the "Mobile Telecentre To-Go" buses visited his school. Having only seen computers in magazines and on television until then, Mr. Wormenor says. "The mobile telecentres have demystified computers to many of us."

The Mobile Telecentre To-Go programme, financed and implemented by UNDP, the government and the private sector, is bringing ICT to students, teachers, health workers, journalists and farmers. Since the project began in October 2000, 6,000 people have received training and e-mail addresses at the telecentres.

Essentially a school and an Internet portal on wheels,



As most Ghanaians cannot afford a computer, let alone an Internet connection, Internet cafés do a brisk business in Accra.

the telecentres consist of two medium-sized buses, each outfitted with 30 laptops behind the seats and equipped with a wireless Internet access network that allows connectivity from inside and outside the buses.

The buses shuttle between the target groups, many of whom had never seen or physically touched a computer before, to give free tailor-made tutorials on computers and the Internet to meet their educational and professional needs.

Eva Lokko, project communications expert and coordinator, says the telecentres now serve 26 computer and Internet-deprived basic schools, three nursing schools and members of the Ghana National Association of Teachers in and around Accra. Demand for the telecentres, she says, is high throughout the country.

"The project has been very successful. It has proven viable, practical and the partners have remained reliable and committed," says the energetic Ms. Lokko, who is now the Director-General of the national television.

There have been requests from other African countries to copy the project and Ghana is planning to replicate the telecentres countrywide.

But that would be an uphill task, says UNDP Resident Representative Alfred Sallia Fawundu. "It would involve commitment and resources to extend this successful programme throughout the country."

Teachers and pupils find computers handy

Seth Mantey, 24, a math teacher, said he stayed away from the Internet cafés because "I didn't want to disgrace myself as I couldn't operate a computer." But after receiving training in the telecentre, now, he says, "I can now walk to an Internet café to browse the Net and check my e-mails."

Now the teachers use the computer for their work, saving time by using Excel's 'auto fill,' feature which automatically calculates the percentages of each of their 210 pupils. Mr. Wormenor says, "I now have enough time to be with my friends."

Emmanuel Salifu, 14, of the Kanda cluster of schools says, "I am not afraid of computers anymore," adding that "I think the computer will help me to become a better chartered accountant in the future."

Training for a modernized judiciary

Ghana is also using ICT to improve government services. With a court system that is painfully slow, choking from swathes of cases, it takes years, sometimes decades, to settle one case.

In June 2003, Justice S.A. Brobbey, one of this country's 11 Supreme Court justices ruled on a complex investment case involving two large real estate developers, a traditional authority and the state-owned Lands Commission, in the record time of two years. Ordinarily, Justice Brobbey says, the case could have dragged on for between 15 and 20 years.

The automation was provided through a project funded by UNDP and the government called "Fast Track" which is working to upgrade the antiquated court system through the use of technological innovation. Staff are being trained to use the computers, scanners, appropriate software and public address systems that have been introduced. Presently, 18 court reporters are undergoing training on stenograph machines to record proceedings. The recordings of these machines can be translated immediately into text on computers and printed out for the litigating parties, allowing a case to be continued the following day without the need for time-wasting adjournments.

The automated courts look remarkably different. In addition to the technological additions, they are well lit, air-conditioned and fitted with comfortable chairs, a sharp departure from the older stuffy, dark and crammed courtrooms.

At the halfway mark of the court modernization programme, in July 2003, courts using Fast Track had delivered judgment on approximately 1,000 cases in just two years. The government now says it will extend the programme to nine of the country's 10 regional capitals and Tema. Accra has six modernized courthouses and Kumasi, the country's second largest city, has four. ■

Kwesi Wrekon Obeng is a news editor for Public Agenda *in Accra, Ghana.*

Court reporters receiving training on new stenograph machines. The machines are part of a larger effort to automate and speed up legal proceedings.

Mobile telecentres, equipped with 30 laptop computers, have allowed more students to have access to computer training.

Ghana

AT A GLANCE

Population: 20 million

Area: 239,460 sq km

Human Development Ranking: 129 of 173 countries

No. of telephone mainlines per 1,000 people: 12

No. of cellular subscribers per 1,000 people: 9

No. of personal computers per 1,000 people: 3

No. of Internet users per 1,000 people: 2

GDP per capita: $2,250

Sources: Human Development Report 2003 and UNDP Global ICT for Development Factbook

Private Competition Drives Down Telephone and Internet Costs in Somalia

But chaotic situation highlights need for self regulation

BY FINBARR O'REILLY

HARGEISA

Two main features interrupt the dusty horizon of Hargeisa, the windblown desert capital of the self-declared, but as yet unrecognized, Republic of Somaliland. The first has always been there, a set of identical twin mountains, but now there is another —competing satellite towers mounted high on the spiny brown ridges overlooking town—that also pierce the low-slung skyline and stand testament to the city's more recent history.

Over the past five years, Somalis have outpaced their neighbours in East African countries in developing their information and communications technology. With a steadily increasing number of mobile phone, fixed-line and Internet service providers, Somalis have turned to technology to fill an infrastructure vacuum in this nation struggling to rebuild itself after a decade of civil war. While there is no official banking system or postal service, and while many Somalis don't have regular running water or electricity, most do have access to fixed phone lines. Many others own mobile phones while colourful Internet cafés are springing up along Hargeisa's bustling downtown streets.

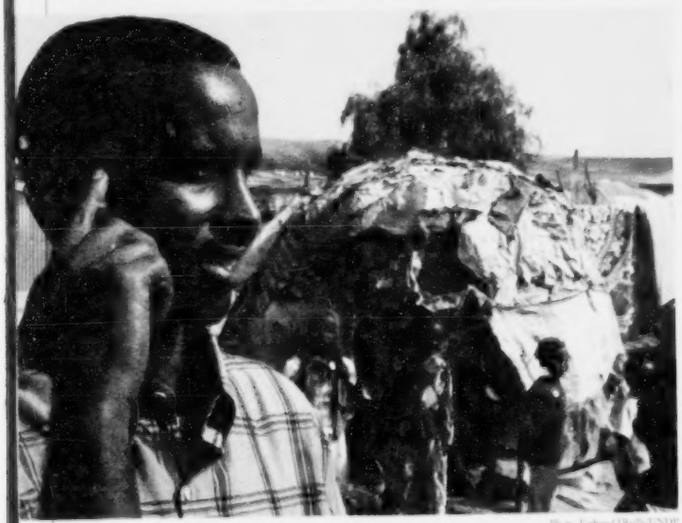


Photo: Finbarr O'Reilly/UNDP

Cell phones are a booming business in Hargeisa, where, as a result of fierce competition and no taxes, the price of a phone call has dramatically fallen.

"In traditional African societies, it's sometimes difficult for government officials to embrace technology, but here, it is the people who decide," says Abdi Karim Mohamed Eid, manager of Telesom, a private telecommunications company.

A decade ago, Somaliland had a single phone company providing fixed lines only. There are now four private telecommunications companies—with a fifth scheduled to have entered the market by the end of 2003—and a growing number of Internet users.

"We started with a few hundred subscribers and now we have about 3,000," says Mr. Eid. "If you add up the other companies, there may be around 20,000 Internet subscribers in Somaliland. That's much more than we anticipated initially and it's a remarkable achievement given that there is no backing from the international community. This is solely done by the Somali business community. We are really proud of that."

In all of Somalia, there are nine companies providing service today through over 105,000 fixed lines and almost 39,000 mobile lines. In 1993, 33 years after independence, there were only 17,000 telephone lines, 14,000 of which were in the capital Mogadishu. Almost 87 percent of the country now has telephone service.

Fierce competition keeps cost down

In Somaliland, fierce competition between the private companies has driven consumer costs down, despite the fact that companies must rely on expensive satellite technology rather than fibre-optic cables. International calls on mobile phones cost US$1 per minute or less, five or six times lower than in most African countries. The lack of a government has also helped keep costs down—there is no tax on telephones.

But the lack of regulation has also created a chaotic situation, where callers subscribing to one company are often unable to talk to people who subscribe to another system. As a result, UNDP, which had been working to promote private enterprise in the region, together with the International Telecommunications Union, invited the leaders of the private companies to a series of meetings in

Satellite dishes have become ubiquitous in the Somali landscape, providing the main link-up for international and Internet connections.

Dubai, where the companies formed the Somali Telecom Association in late 1998.

"It was like a game without a referee," says Abdilghani Jama, Secretary General of the Somali Telecom Association. "Then UNDP and ITU brought all the operators together in Dubai and said, 'we would like to help you but you have to have one office.'"

Since its formation, the Association has been headquartered in Dubai, to allay any fears of favouritism to any region or operator. It is a voluntary organization, and has emerged as the main telecommunications focal point, representing Somali interests at global conferences.

The lack of connections between the various companies grew out of a lack of trust, according to Mr. Jama. In a pilot project to unify the telephone system in Mogadishu, the Telecom Association brought the local operators together to meet with international experts on the costs and benefits of interconnectivity. As a result, the companies contributed to the purchase of new equipment and the formation of a jointly owned company, and now telephone users in Mogadishu can talk to each other.

"Rebuilding trust wasn't easy," says Mr. Jama. "But now we are trying to replicate the Mogadishu model in other areas."

Somaliland is still waiting for the private companies to connect with one another. "Every company runs its own business, we're not connected to each other. If you want to call someone with another company, you have to subscribe to that network," says Abdul Aziz, a network administrator for Telesom. "But we're trying to work that out so it's all one unified system."

In the meantime, approximately three million people living in Somaliland, about 500,000 of them in Hargeisa, will have to make do with what they've got. "There's still a lot of work to be done, but what we've already done is quite an achievement," says Telesom's Mr. Eid. "The benefits that the Internet has brought are tremendous."

Service improvements in Hargeisa

Telesom is aiming to introduce a roaming mobile phone system by early 2004 to allow mobile phone owners from other countries to use their GSM phones—phones that operate according to a global wireless communications standard—while in Somaliland.

By the end of 2003, Telesom also expects to have introduced text and voicemail systems to their network.

Pre-paid cards allow companies to collect money in places where steady incomes, fixed addresses, credit checks, reliable banking and postal systems don't exist. Somaliland still needs fixed lines for families who cannot afford more than the monthly $10 fixed line fee. As a result, the city is wreathed in coils of chaotic telephone cables snaking along roadsides and tangling in overhead spaces.

Hargeisa's private telecommunications companies say they can usually install fixed lines within two days of receiving an application and Internet accounts can be up and running within 24 hours.

Various businesses, especially shipping agencies, have benefited from having Internet access, while money transfer companies are creating their own software packages. A small number of students have also been using the Internet for e-learning through universities overseas.

UNDP, with technical assistance from the Centre for Tele-Information, Technical University of Denmark, is also supporting efforts to bring broadband access to universities and government installations in Somaliland. In 2002, a Very Small Aperture Terminal, or VSAT system, was installed in the UNDP compound in Hargeisa, with nodes of connection to the Ministries of Planning, Finance, Foreign Affairs, the Vice Presidency and the University of Hargeisa. The project aims to provide Internet access to educational institutions and government ministries to supplement initiatives already undertaken by the private sector.

"The benefits of ICT are endless," UNDP Somalia Resident Representative Max Gaylard says. "ICT gives the citizens of a nation access to the world and vice versa. The flow of information and ideas allows Somalis to communicate with each other and with people around the world, but more importantly, it is key to informed decision-making in matters which affect them."

Photo: Finbarr O'Reilly/UNDP

At Micro Computer Services, an Internet and computer training school, there is a month-long waiting list for 50 spaces. "The computer has become the most important tool for employment these days, especially with e-mail. Everybody needs to use a computer and everyone wants to learn how to use it," says the school's manager, adding that the ICT explosion in Somaliland has created job opportunities for those skilled enough to install and repair networks or work in Internet cafes.

"The development of our country relies on information technology, whether it's for health or education. The government is fully aware of that," says Abdullah Duale, Information Minister for Somaliland's de facto government. "The more we inform our people and the more access they have to information, the better off we will be." ■

Coils of chaotic telephone cables line the streets of Hargeisa.

Almost 87 percent of Somalia now has telephone service.

Finbarr O'Reilly is a Canadian journalist who reports extensively from Africa.

Somalia

AT A GLANCE

Population: 9,088,000

Area: 637,657 sq km

No. of telephone mainlines per 1,000 people: 2

No. of cellular subscribers: 39,000

Daily newspapers per 1,000 people: 1

Radios per 1,000 people: 60

Television sets per 1,000 people: 14

Sources: *Human Development Report 2003, UNDP Global ICT for Development Factbook, World Bank ICT at a Glance tables*

Malaysia's Former Prime Minister

Dr. Mahathir Mohamad

Photo: The New Straits Times

Three months before he stepped down as Malaysia's Prime Minister, Dr. Mahathir Mohamad met with CHOICES to discuss his vision for building a strong ICT sector in developing countries.

Eight years ago, Dr. Mahathir initiated the Multimedia Super Corridor project, a 15km by 50km area specially equipped to support world-class ICT industries. The heart of the Corridor can be found in Cyberjaya, where to date, over 900 companies have established operations. He became Prime Minister in 1981.

In this exclusive interview, conducted by Reema Jamil and Shyamala Johnson of *The New Straits Times*, Malaysia, the 78-year-old veteran leader and outspoken proponent for the South argues that access to knowledge is essential for modernization.

If you don't have ICT, you will be left behind

Do you believe a developing country can become developed without establishing a strong ICT industry?

No, I don't think it can. You have to have ICT. If not, you are going to be left behind. All other industries are going to be dependent on ICT, so if you don't have knowledge of it, you cannot modernize your industries.

That is the route that you must take.

Based on the Malaysian experience, what kind of balance must be struck between the public and private sectors' roles in shaping the national growth of ICT?

One has to remember that the public sector, the elected government, is chosen by the people. Therefore it is representative of the general view of the people.

Individuals and even small organizations are set up on their own. While they have very idealistic objectives, they are making judgments on their own. In the final analysis, government must decide. It would not satisfy everybody, obviously.

ICT advocates believe that making this technology accessible to all sectors of society will help close the socio-economic gap. How will this happen?

The person without the correct information will not be able to compete. Giving the community access to all the information enables it to compete with others fairly.

So ICT can help to reduce the gap between people who would normally not have access to information, and people who would. You can't make a decision without having good information. If you have no information, you are likely to make the wrong decisions.

What would motivate a small-scale farmer in a remote area to plug into the World Wide Web?

Once he becomes connected he would have information on what is best for his farm. Supposing meteorologists predict a flood at a certain time—obviously he can benefit from that information. He can also benefit from knowing the latest agricultural methods. Before he would have had to attend courses, and he may not have been able to. With this, he can access any relevant information.

The government has invested heavily in establishing a Malaysian equivalent of Silicon Valley—the Multimedia Super Corridor. Was the effort over-ambitious, as critics charge?

It is ambitious. When we launched it, we didn't expect it to do very well. For that reason, we had a reasonable target, not one that was too high.

For example, we said that by the year 2003, we should have 500 companies, of which 30 would be world-class. But today we have over 900 companies, of which more than 50 are world-class. So if that is a measure of success, then our Multimedia Super Corridor is a success.

The fact is, many developing countries—even some developed ones—are coming here to learn how to establish what amounts to a Multimedia Super Corridor. Why should they learn from failure?

ICT industries can be quite nimble in moving from one country to the next. How can Malaysia ensure that the foreign companies it attracts will stay?

Let's take the operation of HSBC. One of its centres, which processes all banking transactions of its Australia, New Zealand, Singapore, UK and US branches—is located in Cyberjaya.

They came here because our people have the skills. They have mastery of English, they are well educated, and although they command high salaries, their salaries are lower than those in developed countries.

Of course, there may be other developing countries that have lower salaries, but usually their mastery of English is not so good and the government is not too friendly. We respond very quickly to complaints from investors, so they feel comfortable with us. This is one of the few countries where businessmen can access ministers and even the prime minister if they have a problem.

Malaysia is a stable country with an environment that is conducive to business. That includes government policies and practices, fewer industrial disturbances and the availability of knowledge workers.

Has the downturn in high-tech around the world set back Malaysia's efforts to establish a knowledge-based and information society?

It does affect, to a little extent. In the very advanced IT societies, any slowdown means that they cannot make progress, but we are still lagging behind. Progress in these areas has already been made, so we are now actually trying to …catch up?

What is the relationship between building an ICT industry and the need for greater democracy and openness?

The two can go hand in hand, provided people know the limits. Some people think that they can have all the so-called freedoms of democracy, without the responsibility. One has to remember that individual freedom can impinge upon the community's freedom, the democratic rights of the community. So if you allow for total freedom, it is likely that people will abuse that freedom.

There's this classic story I keep telling. In a suburban community of fairly conservative people, somebody decided to put up a cinema to show pornographic films, and he claimed that this was his right.

The courts upheld his right, and the result was that the community lost its right to have a peaceful and tranquil life. One has to remember that one man's right may come at the cost of another man's right.

In Malaysia, we explain to people that our democracy

Photo: Ed Kashi/VII

Multimedia University in Cyberjaya, established to prepare students for the knowledge economy.

does not confer absolute rights on anyone. Western democracy emphasizes individual rights, but we don't. We believe that democracy means the voice of the majority, the voice of the people.

The voice of the people may not be the same as the voice of one individual. In that situation, the voice of the people should prevail.

You've stated before that moral and ethical development must go hand-in-hand with the growth of ICT and access to knowledge. How far have we come in this respect?

Not very far. It's pretty difficult to teach people good values. As you know, the Internet provides us not only with good information but also a lot of filth. It's very difficult to stop people from accessing this filth. Some believe that while people should be able to counter this on their own if they had good values, trying to teach good values is not the easiest thing in the world.

We will try to do that in schools and kindergartens, and throughout life.

But we will also have to try to find ways of filtering out the filth. At the moment the technology is not there for us to selectively restrict access. But the time will come when the software is designed in order to ban filth and morally subversive material.

What would your message be to developing countries, which are struggling to develop their own ICT industries?

They should accept the fact that they need to have these industries; they need to have access to knowledge if they want to catch up. The environment for such industries must be made available.

Initially the amount of money [needed] is not much, but provided the country is stable, the government is business-friendly, and changes in the government don't result in changes in direction, there will always be investors willing to come. ■

Left: New corporate campuses in the Malaysian Silicon Valley, called Cyberjaya.

ICT Files

Bulgaria

ICT Access, Real and Virtual for the Disabled

KURTOVO KONARE, BULGARIA

The centre of almost any Bulgarian town for at least the last century and a half has been the *Chitalishte*—community centres that have served as meeting places and for cultural events. After some years of decline, the *Chitalishte* has been the centre of renewed civic involvement, and recently, some have become major communications hubs, providing people with access to the Internet and computers—access the global community.

For Boyan Brezov, 13, wheelchair-bound as a result of a battle with muscular dystrophy, the *Chitalishte* in Kurtovo Konare became the only place where he could learn about computers and the Web. With his school unable to accommodate him because it was wheelchair inaccessible, Boyan, who is home schooled, was able to learn Word, Excel and Internet skills at the Centre. Beyond his virtual freedom, however, he remained confined to his wheelchair and in need of help from his family and friends.

But the Internet Centre will soon become even more accessible for Boyan and other disabled people. A recent agreement between UNDP and the Centre for Independent Living, Bulgaria's most prominent NGO for disabled people, foresees improved accessibility for the disabled to Centres as a part of a US$2.5 million UNDP project.

The new project envisages an expanded *Chitalishtes* role within the community to increase local participation and support. It also hopes to expand anti-poverty programmes such as small grants for businesses, training and public awareness initiatives.

In 2002, a total of 25 ICT centres were started with 200 computer stations fully equipped to provide services. By the end of May 2003, the centres registered some 40,000 drop-in users, with Internet access accounting for the bulk of overall usage.

—By Maya Nyagolova, the Communications Officer in UNDP Bulgaria.

India

Bringing Government to the People

BHAWANI MANDI, INDIA

It is past 9.30 pm in this small border town in the Jhalawar district of the picturesque state of Rajasthan, best known for its orange, opium and coriander fields. The town is asleep and the shops are long closed, save the lone information kiosk that closes only after 10 pm.

The kiosk is run by Ritesh Pandey, a local youth who received the franchise to set up the *Jan Mitra*, or a "friend of the public" information kiosk under a UNDP and government-supported initiative that has piloted the use of information technology for improving citizens' access to information pertaining to government services in some of the most remote parts of the country.

After a hard day's grind, Raju Mali steps into the kiosk. Mr. Mali, in his mid-30s, is slightly built and looks weary. He has stopped by the kiosk, having seen the sign-board that announces in detail the whole gamut of government services that are available at the info-kiosk. One such service that catches Mali's eye and is immediately relevant to him concerns a land title certificate issued to the villagers.

"My father died a year ago and I have not managed so far to have the property transferred in accordance with his will," Mr. Mali tells the kiosk owner. "You know how it is at the district office. We go all the way and find ourselves at the mercy of the clerk who seldom helps, and almost never without a consideration," Mr. Mali says. "I am a lowly electrician in a textile mill and am hired on a daily wage arrangement. I cannot afford to waste a full day being sent back and forth between sundry government offices, without much hope that my job will be done. But can you help in any way?" he asks, with a look of hopelessness and incredulity.

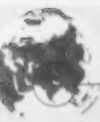
Mr. Pandey, the kiosk-owner, is a consummate information retailer. He shows Mr. Mali the on-line application form and promises that the transfer certificate will be issued to him in seven days. All at a fee of Rupees 10 ($0.20) only. Mr. Mali's first look is one of disbelief but after further explanation, he is convinced and ready to use the facility.

For Mr. Pandey, it has not been a bad day. His turnover for the day: a decent Rupees 150 or slightly over $3.00. Most of this income comes from helping regular people access government-related information.

A combination of administrative reforms and information-technology is marching hand-in-hand in several pockets of India including some of the least developed regions such as Jhalawar in Rajasthan. With the State Government's energetic efforts to bring governance closer to the people through initiatives like sub-district development fairs and grievance redressal fora to deal with people's government-related problems on-the-spot, the Access to Information project using the IT-enabled information kiosk approach marks a huge leap forward in bridging the chasm between local administration and the end-users of service delivery.

The speedy grievance redressal has been a big ticket success story under the *Jan Mitra* initiative, which currently has 28 info-kiosks up and running, with the number expected to go up to 40 by the year's end.

—By Kumar. M. Tiku, the Communications officer in UNDP India.



Nepal

Digital Radio Cuts Through the Static

CHURIYA MAI, NEPAL

The same mountains that make land travel in this country so difficult also make radio reception difficult in many areas. But digital radio, from a satellite, is received unimpeded by the mountaintops and is now bringing a clear signal, with important public health messages, to the people of hard-to-reach communities.

"We are interested in these simple and direct messages regarding sexual/reproductive health. These messages are very helpful for behaviour change. When we receive this sort of message, crystal clear via satellite our listener group finds it very interesting. They gather to listen regularly," says Geeta, who is convening a community listening group in Churiya Mai of Makwanpur, a hilly district in Central Nepal.

The messages are in drama form and also in a magazine format which features a variety of educational themes such as HIV/AIDS. The listener group regularly sits twice a week to listen to the programme which deals with issues such as risky behaviour related to HIV/AIDS and other vital community issues such as poverty, violence against women, microfinance, reproductive health and early childhood development. The broadcasts have been targeted to communities that have low literacy rates, high population mobility and other indications of vulnerability to the spread of HIV/AIDS.

Nepal is the first country to start the broadcasts on the Equal Access Asia Development Channel, a regional initiative, with India, Laos and other Asian countries soon to follow. UNDP and Equal Access, a civil society organization based in San Francisco, California, are implementing an 18-month pilot project. The broadcasts began in April and are now reaching more than 10,000 people directly through satellite receivers in 390 rural communities.

For those who do not have receivers, or those who cannot manage the time to listen during the broadcast hours, the programmes are rebroadcast by Radio Nepal, the government-owned radio station and by about 10 other local FM stations.

Sameer Nepal of Manakamana FM, a local FM radio station in Hetauda, says, "It is very difficult to make programmes on broader social issues for those of us who run a small local FM outside of the capital, Kathmandu valley. When we receive this sort of programming, we feed it into our mixing console and try to give our listeners a balanced programme that is useful too. Otherwise our stations will be playing music most of the time."

The other project partners include UNICEF, CARE Nepal, World Bank, Ford Foundation and the US Agency for International Development.

—By Sangita Khadka, the Communications Officer in UNDP Nepal.

Honduras

ICT Training for the Media

TEGUCIGALPA, HONDURAS

For veteran journalists, the first major change to the profession came with the switch from typewriters to computers. And although change came to many Honduran reporters later than elsewhere, wordprocessing has been only one of the many new ICT tools they have had to learn.

"From the beginning of my career and for more than 10 years thereafter, I was working in the printed press sector, in two of the most influential communications media in Honduras," says Orfa Mejía, a well-known Honduran journalist. "After a long period of using the typewriter, teleprinter and fax, Honduran newspapers began to modernize and to acquire computer equipment to facilitate the editing and production processes."

This transition was not easy for journalists. "We weren't prepared for the change," recalls Ms. Mejía with a smile. "Then from one day to the next, we found ourselves obliged to abandon our beloved Smith Coronas and Olympias, which had been our life-long companions. We were forced to adopt a smart word-processing computer, which filled the gap left by them."

Now the Internet has changed the very nature of reporting, with vast amounts of information available to those who know where to find it. To help Honduran journalists, UNDP, with support from Denmark's Central American Human Rights Programme, began a training programme that allows reporters to efficiently tap into information from the Internet. The Forum for Strengthening Democracy, an organization for promoting social dialogue, conducted the training.

As fewer than one percent of Hondurans have Internet access, only five percent have landline phone service and cell phones, the training initially focused on using the Internet, the value of its immediacy and speed, the quantity and variety of information coming from all over the globe, and the possibilities for contacting specialized sources for information at an extremely low cost and, in many cases, without any need to leave the office.

"I still have a lot to learn, but courses like these have helped me in my journalistic work of producing an informational e-zine (www.revistazo.com) which is written in Tegucigalpa," Ms. Mejía says.

—By Karla Posas, the Communications Officer in UNDP Honduras.

West Bank and Gaza

Web Portal Saves School's Semester

BIR ZEIT, WEST BANK

"It was against all odds," smiles UN Volunteer Rae'd Al Sharif describing Bir Zeit University's success in turning itself into an electronic university in just five months. "Ritaj," an Arabic word for "portal," allows Bir Zeit students to register, view grades and interact with faculty on-line, both on and off the West Bank campus.

"We wanted to create something different," says Ritaj co-author Samer Abu Khait. Samer and Yahia Yaish started thinking about a portal for Bir Zeit while working on the UNDP-supported Palestine Development Gateway. But Ritaj's birth was greatly accelerated in 2002 by the increasingly difficult political situation, which disrupted students' ability to reach the campus. "By helping the students remain electronically connected, Ritaj saved what many thought would be a lost semester," says Mr. Abu Khait. "This is what made it famous."

But Ritaj's success is not just as an electronic platform. "When we started, we discovered that 30 percent of our 5,000 students were computer illiterate," says Mr. Al Sharif. The administration was concerned about "equal access" to the site. "Can you imagine my problem? I needed to train 1,500 students all at once, and not only on how to use a computer. We knew we needed to change the culture."

In response, Mr. Al Sharif's team launched a highly successful computer literacy programme that focused on training-the-trainers and fostering a spirit of sharing and openness. "We had lots of students helping each other," says Ahmed Abed, a Ritaj developer, "and this enthusiasm continues today."

Ritaj has met with overwhelming success. Most Bir Zeit students use the system daily, and even "old school" professors are warming to its benefits. Last September, Ritaj allowed students to register on-line in a matter of minutes. "Previously most students had to travel many miles and stand on lines in the heat for a day or two," laughed Mr. Abed. "Now they are poised over computers at midnight, when registration opens on Ritaj."

Ritaj's success reflects a broad-based leap towards the information society occurring across the West Bank and Gaza. Over two-thirds of the working-age population own a cell phone and Internet usage has increased fourfold in the past few years.

For its part, UNDP's Programme for Assistance to the Palestinian People plays an important role nurturing ICT access and skills throughout the territories. Starting in 1994, when UNDP helped establish the first Palestinian Internet Service Provider, UNDP has assisted institutions, civil society and the private sector by matching technical assistance with a focus on people.

—By Deirdre Collings-Rohozinski and Rafal Rohozinski, UNDP consultants working in the area of conflict, development and ICT.

Lithuania

ICT Skills Help Women Find Jobs

ALYTUS, LITHUANIA

A mother of two, divorced and unemployed for a long time, Zydrute Petrukiene found herself without any skills to get a job. Having completed secondary education several years ago in a rural dairy area, she discovered few practical applications for the things she had learned. And her possibilities to find a job were dismal in a changed world.

Now Ms. Petrukiene is one of the first 16 women to graduate from computer literacy courses at the Alytus Women's Crisis Centre, which has recently added courses that are helping women find new positions in an economy that requires solid ICT skills.

"In this age of technologies, it is necessary to learn how to use them and what's most important—the wish to learn new things helped me to find the job, says Ms. Petrukiene.

Angele Barauskiene, who heads the Alytus Women's Crisis Centre, says Ms. Petrukiene was strongly motivated to find an occupation, and was determined to learn. Some of the other women who registered for the course, she says, "couldn't get over the phase of touching the mouse of a computer."

The Alytus Women's Crisis Centre is one of five women NGOs that is participating in a project in a joint UNDP and the Ministry of Social Security programme aimed at improving women's ICT skills. The project has been financed with $272,930 by the Japanese Women in Development Fund. In May 2003, the programme received an additional boost when Microsoft agreed to donate software worth approximately $56,000.

It is anticipated that the project will train about 800 women over three years, and it is hoped that the new trainees will be able to find employment as well as create jobs for themselves and others.

Implemented by the Kaunas Women's Employment Information Centre, the programme identified localities based on local unemployment levels, the number and the capacity of women's NGOs to provide services. Two groups of women have already completed the course at the Alytus Centre. Angele Barauskiene smiles when she sees Ms. Petrukiene at her new job as a saleswoman for a news shop in Alytus, where she used her new skills for accounting and ordering.

"Now I know, there are no problems that cannot be solved" says Ms. Petrukiene.

—By Giedre Balcytyte, the Communications Officer in UNDP Lithuania.

3. Promote gender equality and empower women

No Simple Solutions to Trafficking

BY PHIL MARSHALL

It is easy to see the problem of human trafficking in terms of "bad guys" and "poor, defenseless victims." But rather than simply arresting a few bad guys, responding to trafficking requires addressing a wider range of issues, both economic and social, that contribute to the practice.

For example, improved working standards for millions in South-East Asia over the last two decades, combined with declining fertility rates, have caused a labour-deficit in many countries, leading to a need to import labour, particularly for unskilled jobs.

One estimate is that there are more than 6.6 million migrants outside their country of citizenship in East and South-East Asia alone. Immigration policies that fail to recognize labour market realities mean that perhaps half of these migrants are in a precarious legal situation. The illegality of much of this migration clearly makes migrants—men and women—vulnerable to exploitation, and to becoming victims of human trafficking.

While the persistence of the exploitation that characterises trafficking reflects a range of discriminations, including ethnicity and class, the gender dimensions of trafficking are manifest. Most legal channels of migration, for example, offer jobs in typically male-dominated sectors such as construction and agriculture work. Opportunities for legal migration into areas in which more women are traditionally found, such as domestic work and the adult entertainment sector, are generally far more limited. As a consequence, women often resort to illegal and more dangerous forms of migration that make them highly vulnerable to trafficking.

Domestic work and entertainment also tend to offer a lower degree of protection than most other sectors. For example, in a number of countries, domestic household work, an area dominated by migrants, is not covered by existing labour laws. Similarly, there are few legal protections for those in the entertainment sector across the region.

Women are also discriminated against in the response to trafficking. Several countries, under the umbrella of anti-trafficking programmes, have implemented policies restricting the movement of women, including a requirement that young women must be accompanied by a guardian. Apart from being a basic breach of human rights, this can actually make women more vulnerable forcing them into the hands of potential traffickers, who can often pass for guardians at border check-points.

In terms of law enforcement, although no reliable figures are available, existing information suggests that the majority of people imprisoned and/or deported for their involvement in trafficking are women. This includes many trafficking victims who are charged with illegal migration or involvement in the sex trade or both. In at least one South-East Asia country, women are often imprisoned for selling sex even though it is not against the law.

Meanwhile, the generally male owners of establishments into which people are trafficked—those who oversee the worst abuses and who stand to make the most profit—are often overlooked. Some trafficking experts even suggest that these owners fall entirely outside the rubric of official responses to trafficking.

While the issue of whether we should be taking a rights-based or abolitionist approach to the sex trade bitterly divides the global anti-trafficking movement, there are few examples of development agencies seeking to provide the space for sex workers to make their voices heard

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on this issue, or even where agencies acknowledge the often blatant human rights abuses perpetuated on those in the sex trade. This is not to take sides in the debate about legalisation of the sex trade—but to suggest that the voices of those most affected should probably be those most listened to, rather than generally not listened to at all. ■

Phil Marshall was, until recently Manager of the UN Inter-Agency Project on Human Trafficking in the Greater Mekong Sub-region. He now works as an adviser to a project aiming to strengthen the criminal justice response to trafficking in South-East Asia.

Study to explore ICT and MDGs

KUALA LUMPUR, MALAYSIA

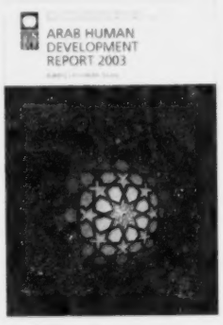
A new report looking to answer the question of whether promoting ICT has an impact on meeting the Millennium Development Goals will be released in early 2004. The report, *Realizing the Millennium Development Goals: Promoting ICT for Human Development in Asia*, is being conducted by the UNDP's Asia-Pacific Development Information Programme and the Human Development Resource Centre and will be based on research conducted in nine countries in Asia, namely China, India, Indonesia, Malaysia, Mongolia, Pakistan, Sri Lanka, Thailand and Viet Nam. Key findings will be released during the World Summit on the Information Society this December.

Shahid Akhtar, Project Coordinator of UNDP's Asia-Pacific Development Information Programme, says "if we were to successfully and accurately operationalize a conceptual framework and methodology in order to assess the role and impact of ICTs on human development, it would be of critical significance to establish clear targets and goals of human development and within this context there are perhaps no better criteria or indicators of human development than the eight key areas identified in the United Nation's Millennium Development Goals."—*James Chacko, UNDP-APDIP.*

Report Finds Barriers to Knowledge in Arab Region an Obstacle to Development

UNITED NATIONS, NEW YORK

Deep-seated social, institutional, economic and political impediments in Arab countries are preventing the spread of knowledge among people in the region, effectively suffocating the development potential for Arabs, according to the newly released *Arab Human Development Report 2003.*



This is the second such report, supported by UNDP but prepared by Arab scholars and development experts; the first, released last year, drew widespread attention in the Arab region and around the world, with a finding that the three most pressing development challenges facing the region are deficits in knowledge, freedom and women's empowerment.

Now concentrating primarily on issues concerning the transfer of knowledge in the Arab world, the report identifies a multiplicity of factors that restrain and restrict the dissemination of information. In particular, the report finds that gains in education across the region are quite modest compared to other developing countries, that high rates of illiteracy persist among women, and that public spending on education has actually decreased over the last 15 years.

"In making the core argument that the Arab world must turn outwards and immerse itself in the global knowledge stream," UNDP Administrator Mark Malloch Brown wrote in the foreword, "the authors make clear that they remain firmly committed to engagement."

There are far fewer media outlets in Arab countries than the world average, and the media that does exist operates in a highly restricted environment, the report finds. There are less than 53 newspapers per 1,000 Arab citizens compared to the 285 papers per 1,000 people in developed countries. Only 4.4 translated books per million people were published in the early 1980s—less than one book per million people per year—while in Hungary, that number was 519 and in Spain, 920. The region accounts for not more than 1.1 percent of all books published worldwide, while its population is nearly five percent of the world's total. Religious books account for 17 percent of books published in the region, more than three times the amount in the rest of the world.

Research and development has lagged as well. Spending on research and development does not exceed 0.2 percent of GNP—one-seventh the world's average—and the number of scientists and engineers working in Arab countries is not more than 371 per million citizens, while the global rate is 979. And while there is a wealth of distinguished literary and artistic work in the region, the absence of freedoms blocks public access to books and artistic works.

The region has suffered from a brain drain as well. Nearly a quarter of all university graduates in 1995/1996 have emigrated. And more than 15,000 Arab doctors have moved elsewhere between 1998 and 2000. At the same time, brain gain has been curtailed. The 11 September attacks have led to a 30 percent drop in the number of students studying in America over the last three years.

The report calls for a "strategic vision" to establish a knowledge society in the Arab world that incorporates freedom of speech, universal quality education, an emphasis on the need for research and development, using knowledge to diversify economic structures and markets, and by developing "an authentic, broadminded and enlightened Arab knowledge model." ■

—By Daniel Shepard, Editor, CHOICES.

Photo: United Nations OCHA/ONOH OCT 2003

Photo: United Nations OCHA/OCHA OCT 2003

Left: Rescue operation continued well into the night of 19 August.

Above: Cafeteria, frozen in time, and wreckage of hotel.

Terrorist Attack Kills 22 UN Staff in Baghdad

At about 4:30 in the afternoon of 19 August, a truck bearing a heavy load of munitions drove into the United Nations Headquarters in Baghdad, killing 22 people, including the UN's top envoy in Iraq, Sergio Vieira de Mello.

The terrorist attack was the deadliest assault ever on the UN. "If people need an example of our United Nations family at its best and brightest, at its most committed and most courageous," UN Secretary-General Kofi Annan said at a memorial service, "they have only to look at the men and women who perished in the Canal Hotel."

"When we lost them," he added, "our Organization also suffered another loss, of a different kind: a loss of innocence for the United Nations. We, who had assumed that our mission to help others served as its own and ultimate form of protection, now find ourselves threatened and exposed. We, who have tried from the beginning to serve those targeted by violence and destruction, have become targets ourselves."

The UN had been working on a wide range of humanitarian and development efforts in Iraq. Essential humanitarian activities in the country continue to be carried out through a small international staff and by Iraqi nationals.

UNDP Administrator Mark Malloch Brown said threats to the UN have continued, and a Web site associated with Al-Qaeda has threatened the UN in another dozen countries. "We have to—and will—take each and every one of these extremely seriously."

Photo: UNDP Jordan

Photo: Nadine Shatarah/UNDP

Sergio Vieira de Mello, centre, at his last briefing in Baghdad.

Mr. Malloch Brown, who represented the Secretary-General at a ceremony to accept the remains of those who died in Baghdad, said "It is difficult to convey quite how sad and sobering it was to stand on the tarmac in Amman watching the enormous UN plane, this time unloading not the rice bags or refugees fleeing a war zone or going home but coffins, dwarfed by the vast Ilyushin, draped in the United Nations flag. It brought home how we, who are there to help, were this time the victims." ■

Left: Mark Malloch Brown, receiving the UN flag that flew over the Canal Hotel.

MATTERS OF FACT

Photo: Nick Mera/UNDP

Afghani girls waiting their turn to enter a recently-established computer kiosk in Kabul.

There are 580 million people in the world with **Internet access**, or roughly, one in six people. ■ China has the second largest Internet population in the world, after the US, and accounts for 6.6 percent of all global **Internet traffic**. ■ More than 80 percent of Japanese households are online. ■ Thirteen percent of all Internet traffic comes from **Asia and the Pacific**. ■ About 85 percent of all connections are through **dial-up connections** that are much slower than broadband connections. ■ In 1998, 88 percent of all Internet users were in developed countries; by 2000 the number had dropped to 79 percent. ■ Business-to-business **e-commerce revenues** will surpass US$1.4 trillion by the end of 2003 and are expected to total $2.7 trillion by the end of 2004. ■ Some of the world's **fastest growing** telephone markets are in the **least developed countries**, where the threshold of one telephone subscriber per 100 inhabitants has been reached. ■ Currently, 97 countries have more **mobile users** than fixed-lines and almost one in six people on the planet have mobile phones. ■ There are about 22 million lines for the 800 million people in Africa, but in many countries, more than 90 percent of these lines are in the **capital city and secondary towns**, while 70-80 percent of the people live outside these areas.

Sources: *UNDP Human Development Report 2001, ITU World Telecommunication Development Report, CTIA Report 2002/03, CyberAtlas, Nielsen NetRatings, AsiaBizTech, Statmarket, IDC Research, eMarketer*

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